


| <b>Product Discontinuation</b>  |   | <b>Recommended Replacement</b>   |
|---|---|--|
| MOS FET Relay<br>Model G3VM-61A1<br>Model G3VM-61D1<br>Model G3VM-61D1(TR)  | ➔ | MOS FET Relay<br>Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)      |
| Model G3VM-61B<br>Model G3VM-61E<br>Model G3VM-61E(TR)  | ➔ | Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)                       |
| Model G3VM-61B1<br>Model G3VM-61E1<br>Model G3VM-61E1(TR)   | ➔ | Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)                       |
| Model G3VM-62C1<br>Model G3VM-62F1<br>Model G3VM-62F1(TR)   | ➔ | Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)<br>Use 2 pcs. each    |
|  Model G3VM-351A<br>Model G3VM-351D<br>Model G3VM-351D(TR) | ➔ | Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05)                    |
| Model G3VM-351B<br>Model G3VM-351E<br>Model G3VM-351E(TR)   | ➔ | Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05)                    |
| Model G3VM-352C<br>Model G3VM-352F<br>Model G3VM-352F(TR)   | ➔ | Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05)<br>Use 2 pcs. each |
| Model G3VM-401A<br>Model G3VM-401D<br>Model G3VM-401D(TR)   |   | Model G3VM-401AY1<br>Model G3VM-401DY1<br>Model G3VM-401DY1(TR05)                    |

| Product Discontinuation<br>MOS FET Relay                                       | Recommended Replacement<br>MOS FET Relay   |
|--|--|
| <b>Model G3VM-401B</b><br><b>Model G3VM-401E</b><br><b>Model G3VM-401E(TR)</b> | <b>Model G3VM-401AY1</b><br><b>Model G3VM-401DY1</b><br><b>Model G3VM-401DY1(TR05)</b>                           |
| <b>Model G3VM-402C</b><br><b>Model G3VM-402F</b><br><b>Model G3VM-402F(TR)</b> | <b>Model G3VM-401AY1</b><br><b>Model G3VM-401DY1</b><br><b>Model G3VM-401DY1(TR05)</b><br><b>Use 2 pcs. each</b> |



**[ Final order entry date ]**

End of December, 2023

**[ Date of The Last Shipping ]**

End of March, 2024

**[ Caution on recommended replacement ]**

Some products differ in body color, dimensions, wire connection and mounting dimensions, but characteristics, operation ratings and operation methods are almost compatible.

Since the G3VM-□C□/F□/F□(TR) product is the 2a type, please use two recommended replacement 1a type products.

**[ Difference from discontinued product ]**

| Recommended replacement Model   | Body Color | Dimensions | Wire connection | Mounting Dimensions | Characteristics | Operation ratings | Operation methods |
|---|------------|------------|-----------------|---------------------|-----------------|-------------------|-------------------|
| Recommendation against<br>Model G3VM-61A1/D1/D1(TR):<br>Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)  | --         | **         | **              | **                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-61B/E/E(TR):<br>Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)     | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-61B1/E1/E1(TR):<br>Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)  | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-62C1/F1/F1(TR):<br>Model G3VM-61AY1<br>Model G3VM-61DY1<br>Model G3VM-61DY1(TR05)  | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-351A/D/D(TR):<br>Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05) | --         | **         | **              | **                  | *               | *                 | **                |

**[ Difference from discontinued product ]**

| Recommended replacement Model   | Body Color | Dimensions | Wire connection | Mounting Dimensions | Characteristics | Operation ratings | Operation methods |
|---|------------|------------|-----------------|---------------------|-----------------|-------------------|-------------------|
| Recommendation against<br>Model G3VM-351B/E/E(TR):<br>Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05) | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-352C/F/F(TR):<br>Model G3VM-351AY1<br>Model G3VM-351DY1<br>Model G3VM-351DY1(TR05) | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-401A/D/D(TR):<br>Model G3VM-401AY1<br>Model G3VM-401DY1<br>Model G3VM-401DY1(TR05) | --         | **         | **              | **                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-401B/E/E(TR):<br>Model G3VM-401AY1<br>Model G3VM-401DY1<br>Model G3VM-401DY1(TR05) | --         | --         | --              | --                  | *               | *                 | **                |
| Recommendation against<br>Model G3VM-402C/F/F(TR):<br>Model G3VM-401AY1<br>Model G3VM-401DY1<br>Model G3VM-401DY1(TR05) | --         | --         | --              | --                  | *               | *                 | **                |

\*\* : Compatible  
 \* : The change is a little/Almost compatible  
 -- : Not compatible  
 - : No corresponding specification

**[ Product Discontinuation and recommended replacement ]**

| Product discontinuation | Recommended replacement           |
|-------------------------|-----------------------------------|
| Model G3VM-61A1         | Model G3VM-61AY1                  |
| Model G3VM-61D1         | Model G3VM-61DY1                  |
| Model G3VM-61D1(TR)     | Model G3VM-61DY1(TR05)            |
| Model G3VM-61B          | Model G3VM-61AY1                  |
| Model G3VM-61E          | Model G3VM-61DY1                  |
| Model G3VM-61E(TR)      | Model G3VM-61DY1(TR05)            |
| Model G3VM-61B1         | Model G3VM-61AY1                  |
| Model G3VM-61E1         | Model G3VM-61DY1                  |
| Model G3VM-61E1(TR)     | Model G3VM-61DY1(TR05)            |
| Model G3VM-62C1         | Model G3VM-61AY1 Use 2 pcs.       |
| Model G3VM-62F1         | Model G3VM-61DY1 Use 2 pcs.       |
| Model G3VM-62F1(TR)     | Model G3VM-61DY1(TR05) Use 2 pcs. |

**[ Product Discontinuation and recommended replacement ]**

| Product discontinuation | Recommended replacement            |
|-------------------------|------------------------------------|
| Model G3VM-351A         | Model G3VM-351AY1                  |
| Model G3VM-351D         | Model G3VM-351DY1                  |
| Model G3VM-351D(TR)     | Model G3VM-351DY1(TR05)            |
| Model G3VM-351B         | Model G3VM-351AY1                  |
| Model G3VM-351E         | Model G3VM-351DY1                  |
| Model G3VM-351E(TR)     | Model G3VM-351DY1(TR05)            |
| Model G3VM-352C         | Model G3VM-351AY1 Use 2 pcs.       |
| Model G3VM-352F         | Model G3VM-351DY1 Use 2 pcs.       |
| Model G3VM-352F(TR)     | Model G3VM-351DY1(TR05) Use 2 pcs. |
| Model G3VM-401A         | Model G3VM-401AY1                  |
| Model G3VM-401D         | Model G3VM-401DY1                  |
| Model G3VM-401D(TR)     | Model G3VM-401DY1(TR05)            |
| Model G3VM-401B         | Model G3VM-401AY1                  |
| Model G3VM-401E         | Model G3VM-401DY1                  |
| Model G3VM-401E(TR)     | Model G3VM-401DY1(TR05)            |
| Model G3VM-402C         | Model G3VM-401AY1 Use 2 pcs.       |
| Model G3VM-402F         | Model G3VM-401DY1 Use 2 pcs.       |
| Model G3VM-402F(TR)     | Model G3VM-401DY1(TR05) Use 2 pcs. |

**[ Body color ]**

| Product discontinuation   | Recommendable replacement  |
|---|--|
| Model G3VM-61A1, -61D1, -61D1(TR)<br>Model G3VM-61B, -61E, -61E(TR)<br>Model G3VM-61B1, -61E1, -61E1(TR)<br>Model G3VM-62C1, -62F1, -62F1(TR)<br>Model G3VM-351A, -351D, -351D(TR)<br>Model G3VM-351B, -351E, -351E(TR)<br>Model G3VM-352C, -352F, -352F(TR)<br>Model G3VM-401A, -401D, -401D(TR)<br>Model G3VM-401B, -401E, -401E(TR)<br>Model G3VM-402C, -402F, -402F(TR) | Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br>Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br>Model G3VM-401AY1, -401DY1, -401DY1(TR05) |
| White   | Black  |

**[ Dimensions ]**

| Product discontinuation   | Recommendable replacement  |
|---|--|
| Model G3VM-61A1, -61D1, -61D1(TR)<br>Model G3VM-351A, -351D, -351D(TR)<br>Model G3VM-401A, -401D, -401D(TR) | Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br>Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br>Model G3VM-401AY1, -401DY1, -401DY1(TR05) |
| <b>Model G3VM-61A1, -351A, -401A</b><br>  | <b>Model G3VM-61D, -61D1(TR), -351D, -351D(TR), -401D, -401D(TR)</b><br>   |
| <b>Model G3VM-61AY1, -351AY1, -401AY1</b><br>Same as Left   | <b>Model G3VM-61DY1, -61DY1(TR05), -351DY1, -351DY1(TR05), -401DY1, -401DY1(TR05)</b><br>Same as Left                            |

[ Dimensions ]

|  |  |   |  |
|--|--|---|--|
| <p><b>Product discontinuation</b><br/>                 Model G3VM-61B, -61E, -61E(TR)<br/>                 Model G3VM-61B1, -61E1, -61E1(TR)<br/>                 Model G3VM-351B, -351E, -351E(TR)<br/>                 Model G3VM-401B, -401E, -401E(TR)</p> |  | <p><b>Recommendable replacement</b><br/>                 Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>                 Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>                 Model G3VM-401AY1, -401DY1, -401DY1(TR05)</p> |  |
| <p><b>Model</b><br/>                 G3VM-61B, -61B1,<br/>                 -351B, -401B</p>  | <p><b>Model</b><br/>                 G3VM-61E, -61E(TR),<br/>                 -61E1, -61E1(TR),<br/>                 -351E, -351E(TR),<br/>                 -401E, -401E(TR)</p> | <p><b>Model</b><br/>                 G3VM-61AY1,<br/>                 -351AY1, -401AY1</p>  | <p><b>Model</b><br/>                 G3VM-61DY1,<br/>                 -61DY1(TR05),<br/>                 -351DY1, -351DY1(TR05),<br/>                 -401DY1, -401DY1(TR05)</p> |

|  |  |  |  |
|--|--|--|--|
| <p><b>Product discontinuation</b><br/>                 Model G3VM-62C1, -62F1, -62F1(TR)<br/>                 Model G3VM-352C, -352F, -352F(TR)<br/>                 Model G3VM-402C, -402F, -402F(TR)</p> |  | <p><b>Recommendable replacement</b><br/>                 Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>                 Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>                 Model G3VM-401AY1, -401DY1, -401DY1(TR05)<br/>                 Use 2 pcs. each</p> |  |
| <p><b>Model</b><br/>                 G3VM-62C1,<br/>                 -352C, -402C</p>  | <p><b>Model</b><br/>                 G3VM-62F1,<br/>                 -62F1(TR),<br/>                 -352F, -352F(TR),<br/>                 -402F, -402F(TR)</p> | <p><b>Model</b><br/>                 G3VM-61AY1,<br/>                 -351AY1, -401AY1</p>   | <p><b>Model</b><br/>                 G3VM-61DY1,<br/>                 -61DY1(TR05),<br/>                 -351DY1, -351DY1(TR05),<br/>                 -401DY1, -401DY1(TR05)</p> |

[ Wire connection ]

|  |   |
|--|---|
| <p><b>Product discontinuation</b><br/>                 Model G3VM-61A1, -61D1, -61D1(TR)<br/>                 Model G3VM-351A, -351D, -351D(TR)<br/>                 Model G3VM-401A, -401D, -401D(TR)</p> | <p><b>Recommendable replacement</b><br/>                 Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>                 Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>                 Model G3VM-401AY1, -401DY1, -401DY1(TR05)</p> |
| <p>(TOP VIEW)</p>  | <p>Same as Left</p>   |

[ Wire connection ]

|  |   |
|--|---|
| <p><b>Product discontinuation</b><br/>         Model G3VM-61B, -61E, -61E(TR)<br/>         Model G3VM-61B1, -61E1, -61E1(TR)<br/>         Model G3VM-351B, -351E, -351E(TR)<br/>         Model G3VM-401B, -401E, -401E(TR)</p> | <p><b>Recommendable replacement</b><br/>         Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>         Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>         Model G3VM-401AY1, -401DY1, -401DY1(TR05)</p> |
| <p>(TOP VIEW)</p>  | <p>(TOP VIEW)</p>   |

|  |  |
|--|--|
| <p><b>Product discontinuation</b><br/>         Model G3VM-62C1, -62F1, -62F1(TR)<br/>         Model G3VM-352C, -352F, -352F(TR)<br/>         Model G3VM-402C, -402F, -402F(TR)</p> | <p><b>Recommendable replacement</b><br/>         Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>         Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>         Model G3VM-401AY1, -401DY1, -401DY1(TR05)<br/>         Use 2 pcs. each</p> |
| <p>(TOP VIEW)</p>  | <p>(TOP VIEW)</p>  |

[ Mounting dimensions ]

|  |  |   |  |
|--|--|---|--|
| <p><b>Product discontinuation</b><br/>         Model G3VM-61A1, -61D1, -61D1(TR)<br/>         Model G3VM-351A, -351D, -351D(TR)<br/>         Model G3VM-401A, -401D, -401D(TR)</p> |  | <p><b>Recommendable replacement</b><br/>         Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>         Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>         Model G3VM-401AY1, -401DY1, -401DY1(TR05)</p> |  |
| <p><b>Model</b><br/> <b>G3VM-61A1,</b><br/> <b>-351A, -401A</b></p> <p>Bottom View</p>   | <p><b>Model</b><br/> <b>G3VM-61D1,</b><br/> <b>-61D1(TR),</b><br/> <b>-351D, -351D(TR),</b><br/> <b>-401D, -401D(TR)</b></p> <p>Top View</p> | <p><b>Model</b><br/> <b>G3VM-61AY1,</b><br/> <b>-351AY1, -401AY1</b></p> <p>Bottom View</p> <p>Same as left</p>   | <p><b>Model</b><br/> <b>G3VM-61DY1,</b><br/> <b>-61DY1(TR05),</b><br/> <b>-351DY1, -351DY1(TR05),</b><br/> <b>-401DY1, -401DY1(TR05)</b></p> <p>Top View</p> <p>Same as left</p> |

[ Mounting dimensions ]

|  |  |   |  |
|--|--|---|--|
| <p><b>Product discontinuation</b><br/>                 Model G3VM-61B, -61E, -61E(TR)<br/>                 Model G3VM-61B1, -61E1, -61E1(TR)<br/>                 Model G3VM-351B, -351E, -351E(TR)<br/>                 Model G3VM-401B, -401E, -401E(TR)</p> |  | <p><b>Recommendable replacement</b><br/>                 Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>                 Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>                 Model G3VM-401AY1, -401DY1, -401DY1(TR05)</p> |  |
| <p><b>Model</b><br/>                 G3VM-61B, -61B1,<br/>                 -351B, -401B</p> <p>Bottom View</p>   | <p><b>Model</b><br/>                 G3VM-61E, -61E(TR),<br/>                 -61E1, -61E1(TR),<br/>                 -351E, -351E(TR),<br/>                 -401E, -401E(TR)</p> <p>Top View</p> | <p><b>Model</b><br/>                 G3VM-61AY1,<br/>                 -351AY1, -401AY1</p> <p>Bottom View</p>   | <p><b>Model</b><br/>                 G3VM-61DY1,<br/>                 -61DY1(TR05),<br/>                 -351DY1, -351DY1(TR05),<br/>                 -401DY1, -401DY1(TR05)</p> <p>Top View</p> |

|  |  |  |  |
|--|--|--|--|
| <p><b>Product discontinuation</b><br/>                 Model G3VM-62C1, -62F1, -62F1(TR)<br/>                 Model G3VM-352C, -352F, -352F(TR)<br/>                 Model G3VM-402C, -402F, -402F(TR)</p> |  | <p><b>Recommendable replacement</b><br/>                 Model G3VM-61AY1, -61DY1, -61DY1(TR05)<br/>                 Model G3VM-351AY1, -351DY1, -351DY1(TR05)<br/>                 Model G3VM-401AY1, -401DY1, -401DY1(TR05)<br/>                 Use 2 pcs. each</p> |  |
| <p><b>Model</b><br/>                 G3VM-62C1,<br/>                 -352C, -402C</p> <p>Bottom View</p>   | <p><b>Model</b><br/>                 G3VM-62F1,<br/>                 -62F1(TR),<br/>                 -352F, -352F(TR),<br/>                 -402F, -402F(TR)</p> <p>Top View</p> | <p><b>Model</b><br/>                 G3VM-61AY1,<br/>                 -351AY1, -401AY1</p> <p>Bottom View</p>  | <p><b>Model</b><br/>                 G3VM-61DY1,<br/>                 -61DY1(TR05),<br/>                 -351DY1, -351DY1(TR05),<br/>                 -401DY1, -401DY1(TR05)</p> <p>Top View</p> |

[ Characteristics / Operation ratings ]

| Item   |  |  |            | Product Discontinuation |                            |                            | Recommended Replacement |                                |                            |     |
|--|--|--|------------|-------------------------|----------------------------|----------------------------|-------------------------|--------------------------------|----------------------------|-----|
|  |  |  |            | G3VM-61A1               | G3VM-61D1<br>G3VM-61D1(TR) |                            | G3VM-61AY1              | G3VM-61DY1<br>G3VM-61DY1(TR05) |                            |     |
| Type   |  |  |            |                         |                            |                            |                         |                                |                            |     |
| Package                                      |  |  |            | DIP4                    |                            |                            | DIP4                    |                                |                            |     |
| Contact form                                 |  |  |            | 1a(SPST-NO)             |                            |                            | 1a(SPST-NO)             |                                |                            |     |
| Terminal structure                           |  |  |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |  | Symbol     | Unit                    | Rating                     |                            |                         | Rating                         |                            |     |
| Input  | LED forward current                    |  | $I_F$      | mA                      | 50                         |                            |                         | 30                             |                            |     |
|  | Repetitive peak LED forward current    |  | $I_{FP}$   | A                       | 1                          |                            |                         | 1                              |                            |     |
|  | LED reverse voltage                    |  | $V_R$      | V                       | 5                          |                            |                         | 5                              |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |  | $V_{OFF}$  | V                       | 60                         |                            |                         | 60                             |                            |     |
|  | Continuous load current                |  | $I_O$      | mA                      | 500                        |                            |                         | 500                            |                            |     |
| Dielectric strength between input and output |  |  | $V_{i-o}$  | Vrms                    | 2,500                      |                            |                         | 5,000                          |                            |     |
| Operating Temperature                        |  |  | $T_a$      | °C                      | -40                        | ~                          | + 85                    | -40                            | ~ + 85                     |     |
| Storage Temperature                          |  |  | $T_{stg}$  | °C                      | -55                        | ~                          | + 125                   | -55                            | ~ + 125                    |     |
| Electrical Characteristics                   |  |  | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                           | Typ.                       | Max |
| Input  | LED Forward voltage                    |  | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                            | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |  | $I_{FT}$   | mA                      | -                          | 1.6                        | 3                       | 0.6                            | -                          | 3   |
|  | Release LED Forward Current            |  | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                            | -                          | -   |
| Output                                       | Maximum resistance with output ON      |  | $R_{ON}$   | $\Omega$                | -                          | 1                          | 2                       | -                              | 0.6                        | 2   |
|  | Current leakage when the relay is open |  | $I_{LEAK}$ | $\mu$ A                 | -                          | -                          | 1                       | -                              | -                          | 1   |
|  | Capacitance between terminals          |  | $C_{OFF}$  | pF                      | -                          | 130                        | -                       | -                              | 130                        | -   |
| Capacitance between I/O terminals            |  |  | $C_{i-o}$  | pF                      | -                          | 0.8                        | -                       | -                              | 0.8                        | -   |
| Insulation resistance between I/O terminals  |  |  | $R_{i-o}$  | M $\Omega$              | 1000                       | 1.00E+08                   | -                       | 1000                           | 1.00E+08                   | -   |
| Turn-ON time                                 |  |  | $t_{ON}$   | ms                      | -                          | 0.8                        | 2                       | -                              | 1                          | 3   |
| Turn-OFF time                                |  |  | $t_{OFF}$  | ms                      | -                          | 0.1                        | 0.5                     | -                              | 0.2                        | 1   |



[ Characteristics / Operation ratings ]

| Item   |  |              |            | Product Discontinuation |                          |                            | Recommended Replacement |                                |                            |     |
|--|--|--------------|------------|-------------------------|--------------------------|----------------------------|-------------------------|--------------------------------|----------------------------|-----|
|  |  |              |            | G3VM-61B                | G3VM-61E<br>G3VM-61E(TR) |                            | G3VM-61AY1              | G3VM-61DY1<br>G3VM-61DY1(TR05) |                            |     |
| Type   |  |              |            |                         |                          |                            |                         |                                |                            |     |
| Package                                      |  |              |            | DIP6                    |                          |                            | DIP4                    |                                |                            |     |
| Contact form                                 |  |              |            | 1a(SPST-NO)             |                          |                            | 1a(SPST-NO)             |                                |                            |     |
| Terminal structure                           |  |              |            | PCB Terminals           |                          | Surface-mounting Terminals | PCB Terminals           |                                | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |              | Symbol     | Unit                    | Rating                   |                            |                         | Rating                         |                            |     |
| Input  | LED forward current                    |              | $I_F$      | mA                      | 50                       |                            |                         | 30                             |                            |     |
|  | Repetitive peak LED forward current    |              | $I_{FP}$   | A                       | 1                        |                            |                         | 1                              |                            |     |
|  | LED reverse voltage                    |              | $V_R$      | V                       | 5                        |                            |                         | 5                              |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |              | $V_{OFF}$  | V                       | 60                       |                            |                         | 60                             |                            |     |
|  | Continuous load current                | Connection A | $I_O$      | mA                      | 500                      |                            |                         | 500                            |                            |     |
|  |  | Connection B |            |                         | 500                      |                            |                         | -                              |                            |     |
|  |  | Connection C |            |                         | 1,000                    |                            |                         | -                              |                            |     |
| Dielectric strength between input and output |  | $V_{IO}$     | Vrms       | 2,500                   |                          |                            | 5,000                   |                                |                            |     |
| Operating Temperature                        |  | $T_a$        | °C         | -40                     | ~                        | + 85                       | -40                     | ~                              | + 85                       |     |
| Storage Temperature                          |  | $T_{stg}$    | °C         | -55                     | ~                        | + 125                      | -55                     | ~                              | + 125                      |     |
| Electrical Characteristics                   |  |              | Symbol     | Unit                    | Min.                     | Typ.                       | Max                     | Min.                           | Typ.                       | Max |
| Input  | LED Forward voltage                    |              | $V_F$      | V                       | 1                        | 1.15                       | 1.3                     | 1.1                            | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |              | $I_{FT}$   | mA                      | -                        | -                          | 3                       | 0.6                            | -                          | 3   |
|  | Release LED Forward Current            |              | $I_{FC}$   | mA                      | 0.1                      | -                          | -                       | 0.1                            | -                          | -   |
| Output                                       | Maximum resistance with output ON      | Connection A | $R_{ON}$   | $\Omega$                | -                        | 1                          | 2                       | -                              | 0.6                        | 2   |
|  |  | Connection B |            |                         | -                        | 0.5                        | 1                       | -                              | -                          | -   |
|  |  | Connection C |            |                         | -                        | 0.25                       | -                       | -                              | -                          | -   |
|  | Current leakage when the relay is open |              | $I_{LEAK}$ | uA                      | -                        | -                          | 1                       | -                              | -                          | 1   |
| Capacitance between terminals                |  | $C_{OFF}$    | pF         | -                       | 130                      | -                          | -                       | 130                            | -                          |     |
| Capacitance between I/O terminals            |  | $C_{IO}$     | pF         | -                       | 0.8                      | -                          | -                       | 0.8                            | -                          |     |
| Insulation resistance between I/O terminals  |  | $R_{IO}$     | M $\Omega$ | 1000                    | 1.00E+08                 | -                          | 1000                    | 1.00E+08                       | -                          |     |
| Turn-ON time                                 |  | $t_{ON}$     | ms         | -                       | 0.6                      | 2                          | -                       | 1                              | 3                          |     |
| Turn-OFF time                                |  | $t_{OFF}$    | ms         | -                       | 0.1                      | 1                          | -                       | 0.2                            | 1                          |     |

[ Characteristics / Operation ratings ]

| Item   |  |              |            | Product Discontinuation |                            |                            | Recommended Replacement |                                |                            |     |
|--|--|--------------|------------|-------------------------|----------------------------|----------------------------|-------------------------|--------------------------------|----------------------------|-----|
|  |  |              |            | G3VM-61B1               | G3VM-61E1<br>G3VM-61E1(TR) |                            | G3VM-61AY1              | G3VM-61DY1<br>G3VM-61DY1(TR05) |                            |     |
| Type   |  |              |            |                         |                            |                            |                         |                                |                            |     |
| Package                                      |  |              |            | DIP6                    |                            |                            | DIP4                    |                                |                            |     |
| Contact form                                 |  |              |            | 1a(SPST-NO)             |                            |                            | 1a(SPST-NO)             |                                |                            |     |
| Terminal structure                           |  |              |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |              | Symbol     | Unit                    | Rating                     |                            |                         | Rating                         |                            |     |
| Input  | LED forward current                    |              | $I_F$      | mA                      | 50                         |                            |                         | 30                             |                            |     |
|  | Repetitive peak LED forward current    |              | $I_{FP}$   | A                       | 1                          |                            |                         | 1                              |                            |     |
|  | LED reverse voltage                    |              | $V_R$      | V                       | 5                          |                            |                         | 5                              |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |              | $V_{OFF}$  | V                       | 60                         |                            |                         | 60                             |                            |     |
|  | Continuous load current                | Connection A | $I_O$      | mA                      | 500                        |                            |                         | 500                            |                            |     |
|  |  | Connection B |            |                         | 500                        |                            |                         | -                              |                            |     |
|  |  | Connection C |            |                         | 1,000                      |                            |                         | -                              |                            |     |
| Dielectric strength between input and output |  | $V_{IO}$     | Vrms       | 2,500                   |                            |                            | 5,000                   |                                |                            |     |
| Operating Temperature                        |  | $T_a$        | °C         | -40                     | ~                          | + 85                       | -40                     | ~                              | + 85                       |     |
| Storage Temperature                          |  | $T_{stg}$    | °C         | -55                     | ~                          | + 125                      | -55                     | ~                              | + 125                      |     |
| Electrical Characteristics                   |  |              | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                           | Typ.                       | Max |
| Input  | LED Forward voltage                    |              | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                            | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |              | $I_{FT}$   | mA                      | -                          | 1.6                        | 3                       | 0.6                            | -                          | 3   |
|  | Release LED Forward Current            |              | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                            | -                          | -   |
| Output                                       | Maximum resistance with output ON      | Connection A | $R_{ON}$   | $\Omega$                | -                          | 1                          | 2                       | -                              | 0.6                        | 2   |
|  |  | Connection B |            |                         | -                          | 0.5                        | 1                       | -                              | -                          | -   |
|  |  | Connection C |            |                         | -                          | 0.25                       | -                       | -                              | -                          | -   |
|  | Current leakage when the relay is open |              | $I_{LEAK}$ | uA                      | -                          | -                          | 1                       | -                              | -                          | 1   |
| Capacitance between terminals                |  | $C_{OFF}$    | pF         | -                       | 130                        | -                          | -                       | 130                            | -                          |     |
| Capacitance between I/O terminals            |  | $C_{IO}$     | pF         | -                       | 0.8                        | -                          | -                       | 0.8                            | -                          |     |
| Insulation resistance between I/O terminals  |  | $R_{IO}$     | M $\Omega$ | 1000                    | 1.00E+08                   | -                          | 1000                    | 1.00E+08                       | -                          |     |
| Turn-ON time                                 |  | $t_{ON}$     | ms         | -                       | 0.8                        | 2                          | -                       | 1                              | 3                          |     |
| Turn-OFF time                                |  | $t_{OFF}$    | ms         | -                       | 0.1                        | 0.5                        | -                       | 0.2                            | 1                          |     |

[ Characteristics / Operation ratings ]

| Item   |  |  |                   | Product Discontinuation |                            |                            | Recommended Replacement |                                |                            |     |
|--|--|--|-------------------|-------------------------|----------------------------|----------------------------|-------------------------|--------------------------------|----------------------------|-----|
|  |  |  |                   | G3VM-62C1               | G3VM-62F1<br>G3VM-62F1(TR) |                            | G3VM-61AY1              | G3VM-61DY1<br>G3VM-61DY1(TR05) |                            |     |
| Use 2 pcs. each                              |  |  |                   |                         |                            |                            |                         |                                |                            |     |
| Type   |  |  |                   |                         |                            |                            |                         |                                |                            |     |
| Package                                      |  |  |                   | DIP8                    |                            |                            | DIP4                    |                                |                            |     |
| Contact form                                 |  |  |                   | 2a(DPST-NO)             |                            |                            | 1a(SPST-NO)             |                                |                            |     |
| Terminal structure                           |  |  |                   | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |  | Symbol            | Unit                    | Rating                     |                            |                         | Rating                         |                            |     |
| Input  | LED forward current                    |  | I <sub>F</sub>    | mA                      | 50                         |                            |                         | 30                             |                            |     |
|  | Repetitive peak LED forward current    |  | I <sub>FP</sub>   | A                       | 1                          |                            |                         | 1                              |                            |     |
|  | LED reverse voltage                    |  | V <sub>R</sub>    | V                       | 5                          |                            |                         | 5                              |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |  | V <sub>OFF</sub>  | V                       | 60                         |                            |                         | 60                             |                            |     |
|  | Continuous load current                |  | I <sub>O</sub>    | mA                      | 500                        |                            |                         | 500                            |                            |     |
| Dielectric strength between input and output |  |  | V <sub>IO</sub>   | Vrms                    | 2,500                      |                            |                         | 5,000                          |                            |     |
| Operating Temperature                        |  |  | T <sub>a</sub>    | °C                      | -40                        | ~                          | + 85                    | -40                            | ~ + 85                     |     |
| Storage Temperature                          |  |  | T <sub>stg</sub>  | °C                      | -55                        | ~                          | + 125                   | -55                            | ~ + 125                    |     |
| Electrical Characteristics                   |  |  | Symbol            | Unit                    | Min.                       | Typ.                       | Max                     | Min.                           | Typ.                       | Max |
| Input  | LED Forward voltage                    |  | V <sub>F</sub>    | V                       | 1                          | 1.15                       | 1.3                     | 1.1                            | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |  | I <sub>FT</sub>   | mA                      | -                          | 1.6                        | 3                       | 0.6                            | -                          | 3   |
|  | Release LED Forward Current            |  | I <sub>FC</sub>   | mA                      | 0.1                        | -                          | -                       | 0.1                            | -                          | -   |
| Output                                       | Maximum resistance with output ON      |  | R <sub>ON</sub>   | Ω                       | -                          | 1                          | 2                       | -                              | 0.6                        | 2   |
|  | Current leakage when the relay is open |  | I <sub>LEAK</sub> | uA                      | -                          | -                          | 1                       | -                              | -                          | 1   |
|  | Capacitance between terminals          |  | C <sub>OFF</sub>  | pF                      | -                          | 130                        | -                       | -                              | 130                        | -   |
| Capacitance between I/O terminals            |  |  | C <sub>LO</sub>   | pF                      | -                          | 0.8                        | -                       | -                              | 0.8                        | -   |
| Insulation resistance between I/O terminals  |  |  | R <sub>IO</sub>   | MΩ                      | 1000                       | 1.00E+08                   | -                       | 1000                           | 1.00E+08                   | -   |
| Turn-ON time                                 |  |  | t <sub>ON</sub>   | ms                      | -                          | 0.8                        | 2                       | -                              | 1                          | 3   |
| Turn-OFF time                                |  |  | t <sub>OFF</sub>  | ms                      | -                          | 0.1                        | 0.5                     | -                              | 0.2                        | 1   |

[ Characteristics / Operation ratings ]

| Item   |  |  |            | Product Discontinuation |                            |                               | Recommended Replacement |                                  |                               |     |
|--|--|--|------------|-------------------------|----------------------------|-------------------------------|-------------------------|----------------------------------|-------------------------------|-----|
|  |  |  |            | G3VM-351A               | G3VM-351D<br>G3VM-351D(TR) |                               | G3VM-351AY1             | G3VM-351DY1<br>G3VM-351DY1(TR05) |                               |     |
| Type   |  |  |            |                         |                            |                               |                         |                                  |                               |     |
| Package                                      |  |  |            | DIP4                    |                            |                               | DIP4                    |                                  |                               |     |
| Contact form                                 |  |  |            | 1a(SPST-NO)             |                            |                               | 1a(SPST-NO)             |                                  |                               |     |
| Terminal structure                           |  |  |            | PCB Terminals           |                            | Surface-mounting<br>Terminals | PCB Terminals           |                                  | Surface-mounting<br>Terminals |     |
| Absolute maximum Rating                      |  |  | Symbol     | Unit                    | Rating                     |                               |                         | Rating                           |                               |     |
| Input  | LED forward current                    |  | $I_F$      | mA                      | 50                         |                               |                         | 30                               |                               |     |
|  | Repetitive peak LED forward current    |  | $I_{FP}$   | A                       | 1                          |                               |                         | 1                                |                               |     |
|  | LED reverse voltage                    |  | $V_R$      | V                       | 5                          |                               |                         | 5                                |                               |     |
| Output                                       | Load Voltage(AC/DC)                    |  | $V_{OFF}$  | V                       | 350                        |                               |                         | 350                              |                               |     |
|  | Continuous load current                |  | $I_O$      | mA                      | 120                        |                               |                         | 100                              |                               |     |
| Dielectric strength between input and output |  |  | $V_{IO}$   | Vrms                    | 2,500                      |                               |                         | 5,000                            |                               |     |
| Operating Temperature                        |  |  | $T_a$      | °C                      | -40                        | ~                             | + 85                    | -40                              | ~ + 85                        |     |
| Storage Temperature                          |  |  | $T_{slg}$  | °C                      | -55                        | ~                             | + 125                   | -55                              | ~ + 125                       |     |
| Electrical Characteristics                   |  |  | Symbol     | Unit                    | Min.                       | Typ.                          | Max                     | Min.                             | Typ.                          | Max |
| Input  | LED Forward voltage                    |  | $V_F$      | V                       | 1                          | 1.15                          | 1.3                     | 1.1                              | 1.27                          | 1.4 |
|  | Trigger LED Forward Current            |  | $I_{FT}$   | mA                      | -                          | 1                             | 3                       | 0.6                              | -                             | 3   |
|  | Release LED Forward Current            |  | $I_{FC}$   | mA                      | 0.1                        | -                             | -                       | 0.1                              | -                             | -   |
| Output                                       | Maximum resistance with output ON      |  | $R_{ON}$   | $\Omega$                | -                          | 35                            | 50                      | -                                | 35                            | 50  |
|  | Current leakage when the relay is open |  | $I_{LEAK}$ | $\mu$ A                 | -                          | -                             | 1                       | -                                | -                             | 1   |
|  | Capacitance between terminals          |  | $C_{OFF}$  | pF                      | -                          | 30                            | -                       | -                                | 30                            | -   |
| Capacitance between I/O terminals            |  |  | $C_{IO}$   | pF                      | -                          | 0.8                           | -                       | -                                | 0.8                           | -   |
| Insulation resistance between I/O terminals  |  |  | $R_{IO}$   | M $\Omega$              | 1000                       | 1.00E+08                      | -                       | 1000                             | 1.00E+08                      | -   |
| Turn-ON time                                 |  |  | $t_{ON}$   | ms                      | -                          | 0.3                           | 1                       | -                                | 0.3                           | 2   |
| Turn-OFF time                                |  |  | $t_{OFF}$  | ms                      | -                          | 0.1                           | 1                       | -                                | 0.1                           | 1   |

[ Characteristics / Operation ratings ]

| Item   |  |              |            | Product Discontinuation |                            |                            | Recommended Replacement |                                  |                            |     |
|--|--|--------------|------------|-------------------------|----------------------------|----------------------------|-------------------------|----------------------------------|----------------------------|-----|
|  |  |              |            | G3VM-351B               | G3VM-351E<br>G3VM-351E(TR) |                            | G3VM-351AY1             | G3VM-351DY1<br>G3VM-351DY1(TR05) |                            |     |
| Type   |  |              |            |                         |                            |                            |                         |                                  |                            |     |
| Package                                      |  |              |            | DIP6                    |                            |                            | DIP4                    |                                  |                            |     |
| Contact form                                 |  |              |            | 1a(SPST-NO)             |                            |                            | 1a(SPST-NO)             |                                  |                            |     |
| Terminal structure                           |  |              |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                  | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |              | Symbol     | Unit                    | Rating                     |                            |                         | Rating                           |                            |     |
| Input  | LED forward current                    |              | $I_F$      | mA                      | 50                         |                            |                         | 30                               |                            |     |
|  | Repetitive peak LED forward current    |              | $I_{FP}$   | A                       | 1                          |                            |                         | 1                                |                            |     |
|  | LED reverse voltage                    |              | $V_R$      | V                       | 5                          |                            |                         | 5                                |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |              | $V_{OFF}$  | V                       | 350                        |                            |                         | 350                              |                            |     |
|  | Continuous load current                | Connection A | $I_O$      | mA                      | 120                        |                            |                         | 100                              |                            |     |
|  |  | Connection B |            |                         | 120                        |                            |                         | -                                |                            |     |
|  |  | Connection C |            |                         | 240                        |                            |                         | -                                |                            |     |
| Dielectric strength between input and output |  | $V_{IO}$     | Vrms       | 2,500                   |                            |                            | 5,000                   |                                  |                            |     |
| Operating Temperature                        |  | $T_a$        | °C         | -40                     | ~                          | + 85                       | -40                     | ~                                | + 85                       |     |
| Storage Temperature                          |  | $T_{stg}$    | °C         | -55                     | ~                          | + 125                      | -55                     | ~                                | + 125                      |     |
| Electrical Characteristics                   |  |              | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                             | Typ.                       | Max |
| Input  | LED Forward voltage                    |              | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                              | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |              | $I_{FT}$   | mA                      | -                          | 1                          | 3                       | 0.6                              | -                          | 3   |
|  | Release LED Forward Current            |              | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                              | -                          | -   |
| Output                                       | Maximum resistance with output ON      | Connection A | $R_{ON}$   | $\Omega$                | -                          | 35                         | 50                      | -                                | 35                         | 50  |
|  |  | Connection B |            |                         | -                          | 28                         | 40                      | -                                | -                          | -   |
|  |  | Connection C |            |                         | -                          | 14                         | 20                      | -                                | -                          | -   |
|  | Current leakage when the relay is open |              | $I_{LEAK}$ | uA                      | -                          | -                          | 1                       | -                                | -                          | 1   |
| Capacitance between terminals                |  | $C_{OFF}$    | pF         | -                       | 30                         | -                          | -                       | 30                               | -                          |     |
| Capacitance between I/O terminals            |  | $C_{IO}$     | pF         | -                       | 0.8                        | -                          | -                       | 0.8                              | -                          |     |
| Insulation resistance between I/O terminals  |  | $R_{IO}$     | M $\Omega$ | 1000                    | 1.00E+08                   | -                          | 1000                    | 1.00E+08                         | -                          |     |
| Turn-ON time                                 |  | $t_{ON}$     | ms         | -                       | 0.3                        | 1                          | -                       | 0.3                              | 2                          |     |
| Turn-OFF time                                |  | $t_{OFF}$    | ms         | -                       | 0.1                        | 1                          | -                       | 0.1                              | 1                          |     |

[ Characteristics / Operation ratings ]

| Item   |  |  |            | Product Discontinuation |                            |                            | Recommended Replacement |                                  |                            |     |
|--|--|--|------------|-------------------------|----------------------------|----------------------------|-------------------------|----------------------------------|----------------------------|-----|
|  |  |  |            | G3VM-352C               | G3VM-352F<br>G3VM-352F(TR) |                            | G3VM-351AY1             | G3VM-351DY1<br>G3VM-351DY1(TR05) |                            |     |
| Use 2 pcs. each                              |  |  |            |                         |                            |                            |                         |                                  |                            |     |
| Type   |  |  |            |                         |                            |                            |                         |                                  |                            |     |
| Package                                      |  |  |            | DIP8                    |                            |                            | DIP4                    |                                  |                            |     |
| Contact form                                 |  |  |            | 2a(DPST-NO)             |                            |                            | 1a(SPST-NO)             |                                  |                            |     |
| Terminal structure                           |  |  |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                  | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |  | Symbol     | Unit                    | Rating                     |                            |                         | Rating                           |                            |     |
| Input  | LED forward current                    |  | $I_F$      | mA                      | 50                         |                            |                         | 30                               |                            |     |
|  | Repetitive peak LED forward current    |  | $I_{FP}$   | A                       | 1                          |                            |                         | 1                                |                            |     |
|  | LED reverse voltage                    |  | $V_R$      | V                       | 5                          |                            |                         | 5                                |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |  | $V_{OFF}$  | V                       | 350                        |                            |                         | 350                              |                            |     |
|  | Continuous load current                |  | $I_O$      | mA                      | 120                        |                            |                         | 100                              |                            |     |
| Dielectric strength between input and output |  |  | $V_{iO}$   | Vrms                    | 2,500                      |                            |                         | 5,000                            |                            |     |
| Operating Temperature                        |  |  | $T_a$      | °C                      | -40                        | ~                          | + 85                    | -40                              | ~ + 85                     |     |
| Storage Temperature                          |  |  | $T_{stg}$  | °C                      | -55                        | ~                          | + 125                   | -55                              | ~ + 125                    |     |
| Electrical Characteristics                   |  |  | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                             | Typ.                       | Max |
| Input  | LED Forward voltage                    |  | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                              | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |  | $I_{FT}$   | mA                      | -                          | 1                          | 3                       | 0.6                              | -                          | 3   |
|  | Release LED Forward Current            |  | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                              | -                          | -   |
| Output                                       | Maximum resistance with output ON      |  | $R_{ON}$   | $\Omega$                | -                          | 35                         | 50                      | -                                | 35                         | 50  |
|  | Current leakage when the relay is open |  | $I_{LEAK}$ | $\mu$ A                 | -                          | -                          | 1                       | -                                | -                          | 1   |
|  | Capacitance between terminals          |  | $C_{OFF}$  | pF                      | -                          | 30                         | -                       | -                                | 30                         | -   |
| Capacitance between I/O terminals            |  |  | $C_{iO}$   | pF                      | -                          | 0.8                        | -                       | -                                | 0.8                        | -   |
| Insulation resistance between I/O terminals  |  |  | $R_{iO}$   | M $\Omega$              | 1000                       | 1.00E+08                   | -                       | 1000                             | 1.00E+08                   | -   |
| Turn-ON time                                 |  |  | $t_{ON}$   | ms                      | -                          | 0.3                        | 1                       | -                                | 0.3                        | 2   |
| Turn-OFF time                                |  |  | $t_{OFF}$  | ms                      | -                          | 0.1                        | 1                       | -                                | 0.1                        | 1   |

[ Characteristics / Operation ratings ]

| Item   |  |  |            | Product Discontinuation |                            |                            | Recommended Replacement |                                  |                            |          |   |
|--|--|--|------------|-------------------------|----------------------------|----------------------------|-------------------------|----------------------------------|----------------------------|----------|---|
|  |  |  |            | G3VM-401A               | G3VM-401D<br>G3VM-401D(TR) |                            | G3VM-401AY1             | G3VM-401DY1<br>G3VM-401DY1(TR05) |                            |          |   |
| Type   |  |  |            |                         |                            |                            |                         |                                  |                            |          |   |
| Package                                      |  |  |            | DIP4                    |                            |                            | DIP4                    |                                  |                            |          |   |
| Contact form                                 |  |  |            | 1a(SPST-NO)             |                            |                            | 1a(SPST-NO)             |                                  |                            |          |   |
| Terminal structure                           |  |  |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                  | Surface-mounting Terminals |          |   |
| Absolute maximum Rating                      |  |  | Symbol     | Unit                    | Rating                     |                            |                         | Rating                           |                            |          |   |
| Input  | LED forward current                    |  | $I_F$      | mA                      | 50                         |                            |                         | 30                               |                            |          |   |
|  | Repetitive peak LED forward current    |  | $I_{FP}$   | A                       | 1                          |                            |                         | 1                                |                            |          |   |
|  | LED reverse voltage                    |  | $V_R$      | V                       | 5                          |                            |                         | 5                                |                            |          |   |
| Output                                       | Load Voltage(AC/DC)                    |  | $V_{OFF}$  | V                       | 400                        |                            |                         | 400                              |                            |          |   |
|  | Continuous load current                |  | $I_O$      | mA                      | 120                        |                            |                         | 120                              |                            |          |   |
| Dielectric strength between input and output |  |  |            | $V_{LO}$                | Vrms                       | 2,500                      |                         |                                  | 5,000                      |          |   |
| Operating Temperature                        |  |  |            | $T_a$                   | °C                         | -40                        | ~                       | + 85                             | -40                        | ~ + 85   |   |
| Storage Temperature                          |  |  |            | $T_{stg}$               | °C                         | -55                        | ~                       | + 125                            | -55                        | ~ + 125  |   |
| Electrical Characteristics                   |  |  | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                             | Typ.                       | Max      |   |
| Input  | LED Forward voltage                    |  | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                              | 1.27                       | 1.4      |   |
|  | Trigger LED Forward Current            |  | $I_{FT}$   | mA                      | -                          | 1                          | 3                       | 0.6                              | -                          | 3        |   |
|  | Release LED Forward Current            |  | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                              | -                          | -        |   |
| Output                                       | Maximum resistance with output ON      |  | $R_{ON}$   | Ω                       | -                          | 18                         | 35                      | -                                | 22                         | 35       |   |
|  | Current leakage when the relay is open |  | $I_{LEAK}$ | uA                      | -                          | -                          | 1                       | -                                | -                          | 1        |   |
|  | Capacity between terminals             |  | $C_{OFF}$  | pF                      | -                          | 40                         | -                       | -                                | 80                         | -        |   |
| Capacity between I/O terminals               |  |  |            | $C_{LO}$                | pF                         | -                          | 0.8                     | -                                | -                          | 0.8      | - |
| Insulation resistance between I/O terminals  |  |  |            | $R_{LO}$                | MΩ                         | 1000                       | 1.00E+08                | -                                | 1000                       | 1.00E+08 | - |
| Turn-ON time                                 |  |  |            | $t_{ON}$                | ms                         | -                          | -                       | 1                                | -                          | 0.6      | 2 |
| Turn-OFF time                                |  |  |            | $t_{OFF}$               | ms                         | -                          | -                       | 1                                | -                          | 0.2      | 1 |

[ Characteristics / Operation ratings ]

| Item   |  |              |            | Product Discontinuation |                            |                            | Recommended Replacement |                                  |                            |     |
|--|--|--------------|------------|-------------------------|----------------------------|----------------------------|-------------------------|----------------------------------|----------------------------|-----|
|  |  |              |            | G3VM-401B               | G3VM-401E<br>G3VM-401E(TR) |                            | G3VM-401AY1             | G3VM-401DY1<br>G3VM-401DY1(TR05) |                            |     |
| Type   |  |              |            |                         |                            |                            |                         |                                  |                            |     |
| Package                                      |  |              |            | DIP6                    |                            |                            | DIP4                    |                                  |                            |     |
| Contact form                                 |  |              |            | 1a(SPST-NO)             |                            |                            | 1a(SPST-NO)             |                                  |                            |     |
| Terminal structure                           |  |              |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                  | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |              | Symbol     | Unit                    | Rating                     |                            |                         | Rating                           |                            |     |
| Input  | LED forward current                    |              | $I_F$      | mA                      | 50                         |                            |                         | 30                               |                            |     |
|  | Repetitive peak LED forward current    |              | $I_{FP}$   | A                       | 1                          |                            |                         | 1                                |                            |     |
|  | LED reverse voltage                    |              | $V_R$      | V                       | 5                          |                            |                         | 5                                |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |              | $V_{OFF}$  | V                       | 400                        |                            |                         | 400                              |                            |     |
|  | Continuous load current                | Connection A | $I_O$      | mA                      | 120                        |                            |                         | 120                              |                            |     |
|  |  | Connection B |            |                         | 120                        |                            |                         | -                                |                            |     |
|  |  | Connection C |            |                         | 240                        |                            |                         | -                                |                            |     |
| Dielectric strength between input and output |  | $V_{IO}$     | Vrms       | 2,500                   |                            |                            | 5,000                   |                                  |                            |     |
| Operating Temperature                        |  | $T_a$        | °C         | -40                     | ~                          | + 85                       | -40                     | ~                                | + 85                       |     |
| Storage Temperature                          |  | $T_{stg}$    | °C         | -55                     | ~                          | + 125                      | -55                     | ~                                | + 125                      |     |
| Electrical Characteristics                   |  |              | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                             | Typ.                       | Max |
| Input  | LED Forward voltage                    |              | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                              | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |              | $I_{FT}$   | mA                      | -                          | 1                          | 3                       | 0.6                              | -                          | 3   |
|  | Release LED Forward Current            |              | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                              | -                          | -   |
| Output                                       | Maximum resistance with output ON      | Connection A | $R_{ON}$   | $\Omega$                | -                          | 17                         | 35                      | -                                | 22                         | 35  |
|  |  | Connection B |            |                         | -                          | 11                         | 20                      | -                                | -                          | -   |
|  |  | Connection C |            |                         | -                          | 6                          | 10                      | -                                | -                          | -   |
|  | Current leakage when the relay is open |              | $I_{LEAK}$ | $\mu$ A                 | -                          | -                          | 1                       | -                                | -                          | 1   |
| Capacitance between terminals                |  | $C_{OFF}$    | pF         | -                       | 40                         | -                          | -                       | 80                               | -                          |     |
| Capacitance between I/O terminals            |  | $C_{IO}$     | pF         | -                       | 0.8                        | -                          | -                       | 0.8                              | -                          |     |
| Insulation resistance between I/O terminals  |  | $R_{IO}$     | M $\Omega$ | 1000                    | 1.00E+08                   | -                          | 1000                    | 1.00E+08                         | -                          |     |
| Turn-ON time                                 |  | $t_{ON}$     | ms         | -                       | 0.3                        | 1                          | -                       | 0.6                              | 2                          |     |
| Turn-OFF time                                |  | $t_{OFF}$    | ms         | -                       | 0.1                        | 1                          | -                       | 0.2                              | 1                          |     |



[ Characteristics / Operation ratings ]

| Item   |  |  |            | Product Discontinuation |                            |                            | Recommended Replacement |                                  |                            |     |
|--|--|--|------------|-------------------------|----------------------------|----------------------------|-------------------------|----------------------------------|----------------------------|-----|
|  |  |  |            | G3VM-402C               | G3VM-402F<br>G3VM-402F(TR) |                            | G3VM-401AY1             | G3VM-401DY1<br>G3VM-401DY1(TR05) |                            |     |
| Use 2 pcs. each                              |  |  |            |                         |                            |                            |                         |                                  |                            |     |
| Type   |  |  |            |                         |                            |                            |                         |                                  |                            |     |
| Package                                      |  |  |            | DIP8                    |                            |                            | DIP4                    |                                  |                            |     |
| Contact form                                 |  |  |            | 2a(DPST-NO)             |                            |                            | 1a(SPST-NO)             |                                  |                            |     |
| Terminal structure                           |  |  |            | PCB Terminals           |                            | Surface-mounting Terminals | PCB Terminals           |                                  | Surface-mounting Terminals |     |
| Absolute maximum Rating                      |  |  | Symbol     | Unit                    | Rating                     |                            |                         | Rating                           |                            |     |
| Input  | LED forward current                    |  | $I_F$      | mA                      | 50                         |                            |                         | 30                               |                            |     |
|  | Repetitive peak LED forward current    |  | $I_{FP}$   | A                       | 1                          |                            |                         | 1                                |                            |     |
|  | LED reverse voltage                    |  | $V_R$      | V                       | 5                          |                            |                         | 5                                |                            |     |
| Output                                       | Load Voltage(AC/DC)                    |  | $V_{OFF}$  | V                       | 400                        |                            |                         | 400                              |                            |     |
|  | Continuous load current                |  | $I_O$      | mA                      | 120                        |                            |                         | 120                              |                            |     |
| Dielectric strength between input and output |  |  | $V_{iO}$   | Vrms                    | 2,500                      |                            |                         | 5,000                            |                            |     |
| Operating Temperature                        |  |  | $T_a$      | °C                      | -40                        | ~                          | + 85                    | -40                              | ~ + 85                     |     |
| Storage Temperature                          |  |  | $T_{sig}$  | °C                      | -55                        | ~                          | + 125                   | -55                              | ~ + 125                    |     |
| Electrical Characteristics                   |  |  | Symbol     | Unit                    | Min.                       | Typ.                       | Max                     | Min.                             | Typ.                       | Max |
| Input  | LED Forward voltage                    |  | $V_F$      | V                       | 1                          | 1.15                       | 1.3                     | 1.1                              | 1.27                       | 1.4 |
|  | Trigger LED Forward Current            |  | $I_{FT}$   | mA                      | -                          | 1                          | 3                       | 0.6                              | -                          | 3   |
|  | Release LED Forward Current            |  | $I_{FC}$   | mA                      | 0.1                        | -                          | -                       | 0.1                              | -                          | -   |
| Output                                       | Maximum resistance with output ON      |  | $R_{ON}$   | $\Omega$                | -                          | 18                         | 35                      | -                                | 22                         | 35  |
|  | Current leakage when the relay is open |  | $I_{LEAK}$ | $\mu$ A                 | -                          | -                          | 1                       | -                                | -                          | 1   |
|  | Capacitance between terminals          |  | $C_{OFF}$  | pF                      | -                          | -                          | -                       | -                                | 80                         | -   |
| Capacitance between I/O terminals            |  |  | $C_{iO}$   | pF                      | -                          | 0.8                        | -                       | -                                | 0.8                        | -   |
| Insulation resistance between I/O terminals  |  |  | $R_{iO}$   | M $\Omega$              | 1000                       | 1.00E+08                   | -                       | 1000                             | 1.00E+08                   | -   |
| Turn-ON time                                 |  |  | $t_{ON}$   | ms                      | -                          | -                          | 1                       | -                                | 0.6                        | 2   |
| Turn-OFF time                                |  |  | $t_{OFF}$  | ms                      | -                          | -                          | 1                       | -                                | 0.2                        | 1   |

Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.