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Vishay

## Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)

Dear customer,

the Vishay Aluminum Capacitor and Energy Storage part numbers / series as listed in the Annex do **NOT** contain any of the total of **223 substances** of the REACH Candidate List of Substances of Very High Concern (SVHC) in more than 0.1 % wt/wt as defined by the REACH Directive:

as published in ECHA/PR/08/38 of October 28, 2008; and as published in ECHA/PR/10/01 of January 13, 2010; and as published in ECHA/PR/10/05 of March 30, 2010; and as published in ECHA/PR/10/12 of June 18, 2010; and as published in ECHA/PR/10/26 of December 15, 2010; and as published in ECHA/PR/11/15 of June 20, 2011; and as published in ECHA/PR/11/26 of December 19, 2011; and as published in ECHA/PR/12/16 of June 18, 2012; and as published in ECHA/PR/12/39 of December 19, 2012; and as published in ECHA/PR/13/26 of June 20, 2013; and as published in ECHA/PR/13/40 of December 16, 2013; and as published in ECHA/PR/14/11 of June 16, 2014; and as published in ECHA/PR/14/18 of December 17, 2014; and as published in ECHA/PR/15/09 of June 15, 2015; and as published in ECHA/PR/15/18 of December 17, 2015; and as published in ECHA/PR/16/07 of June 20, 2016; and as published in ECHA/PR/17/02 of January 12, 2017; and as published in ECHA/PR/17/14 of July 10, 2017; and as published in ECHA/PR/18/01 of January 15, 2018; and as published in ECHA/PR/18/11 of June 27, 2018; and as published in ECHA/PR/19/01 of January 15, 2019; and as published in ECHA/PR/19/12 of July 16, 2019; and as published in ECHA/PR/20/02 of January 16, 2020; and as published in ECHA/PR/20/05 of June 25, 2020; and as published in ECHA/NR/21/05 of January 19, 2021; and as published in ECHA/NR/21/20 of July 8, 2021; and as published in ECHA/NR/22/01 of January 17, 2022.

http://echa.europa.eu/web/guest/candidate-list-table

The Vishay Aluminum Capacitor part numbers / series as listed in the Annex also do NOT contain any of the substances of the REACH Authorization List in the REACH Directive Annex XIV and of the REACH Restriction List in the REACH Directive Annex XVII.

This data is accurate to the best of our knowledge.

Gerald Tatschl

gerald Total

Senior Manager Product Marketing - Aluminum Capacitors Division REACH, RoHS, and Hazardous Substances Coordinator Aluminum Capacitors Division



## **ANNEX**

| SERIES   | REACH-223 COMPLIANT PART NUMBER  |
|--|----------------------------------|
|  | MAL2013xxxxxE3                   |
|  | MAL2036xxxxxE3                   |
|  | MAL2038xxxxxE3                   |
|  | MAL2046xxxxxE3                   |
|  | MAL2047xxxxxE3                   |
|  | MAL2048xxxxxE3                   |
|  | MAL2097xxxxxE3                   |
|  | MAL2116xxxxxE3                   |
|  | MAL2134xxxxxE3                   |
|  | MAL2136xxxxxE3                   |
| Radial   | MAL2140xxxxxE3  MAL2142xxxxxE3   |
| radiai   | MAL2142XXXXE3  MAL2146XXXXXE3    |
|  | MAL2148xxxxxE3  MAL2148xxxxxE3   |
| <del></del>                                      | MAL2150xxxxxE3                   |
| -  | MAL2151xxxxxE3                   |
| <del> </del>                                     | MAL2151XXXXLS  MAL2152XXXXXE3    |
| <del> </del>                                     | MAL2160xxxxxE3                   |
| <del> </del>                                     | MAL2170xxxxxE3                   |
|  | MAL2190xxxxxE3                   |
|  | MAL2246xxxxxE3                   |
|  | MAL2250xxxxxE3                   |
|  | MAL2260xxxxxE3                   |
|  | MAL2021xxxxxE3                   |
|  | MAL2030xxxxxE3                   |
|  | MAL2031xxxxxE3                   |
|  | MAL2041xxxxxE3                   |
|  | MAL2042xxxxxE3                   |
|  | MAL2043xxxxxE3                   |
|  | MAL2118xxxxxE3                   |
| Axial  | MAL2119xxxxxE3                   |
|  | MAL2120xxxxxE3                   |
|  | MAL2125xxxxxE3                   |
|  | MAL2126xxxxxE3                   |
|  | MAL2132xxxxxE3                   |
|  | MAL2133xxxxxE3                   |
|  | MAL2138xxxxxE3                   |
|  | MAL2139xxxxxE3                   |
|  | MAL214095xxxE3, 97xxxE3, 99xxxE3 |
|  | MAL214699xxxE3                   |
|  | MAL215095xxxE3, 97xxxE3, 99xxxE3 |
| <u> </u>   | MAL215299xxxE3                   |
| <u> </u>   | MAL21536xxxxE3 MAL21537xxxxE3    |
| <u> </u>   | MAL21637XXXXE3  MAL216099XXXE3   |
| <u> </u>   | MAL216099XXE3  MAL218097XXXE3    |
| <u> </u>   | MAL21809/XXXE3  MAL218197xxxE3   |
| SMD  | MAL2182xxxxxE3                   |
| <del> </del>                                     | MAL2183xxxxxE3  MAL2183xxxxxE3   |
| <u> </u>   | MAL2184xxxxE3  MAL2184xxxxE3     |
| <del> </del>                                     | MAL2185xxxxxE3  MAL2185xxxxxE3   |
| <del> </del>                                     | MAL2186xxxxxE3  MAL2186xxxxxE3   |
| <del> </del>                                     | MAL219299xxxE3                   |
| <del>                                     </del> | MAL219299XXE3  MAL2246XXXXXE3    |
|  | MAL2250xxxxxE3  MAL2250xxxxxE3   |
|  | MAL2250XXXXL3  MAL2260xxxxxE3    |

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| VISHAY BCCOMPONENTS SERIES              | REACH-223 COMPLIANT PART NUMBER |
|---|---------------------------------|
| SERIES                                  | MAL2050xxxxxE3                  |
|   | MAL2051xxxxxE3                  |
|   | MAL2052xxxxxE3                  |
|   | MAL2053xxxxxE3                  |
|   | MAL2056xxxxxE3                  |
|   | MAL2050xxxxxE3                  |
|   | MAL2058xxxxxE3                  |
|   | MAL2059xxxxxE3                  |
|   | MAL20990xxxxxE3                 |
|   | MAL2093xxxxxE3                  |
|   | MAL2093XXXXE3  MAL2094xxxxxE3   |
|   | MAL2094XXXXE3  MAL2095XXXXXE3   |
|   |                                 |
| SI, PW, and SL                          | MAL2096xxxxxE3                  |
|   | MAL2156xxxxxE3                  |
|   | MAL2157xxxxxE3                  |
|   | MAL2158xxxxxE3                  |
|   | MAL2159xxxxxE3                  |
|   | MAL2162xxxxxE3                  |
|   | MAL2163xxxxxE3                  |
|   | MAL2193xxxxxE3                  |
|   | MAL2198xxxxxE3                  |
|   | MAL2199xxxxxE3                  |
|   | MAL2256xxxxxE3                  |
|   | MAL2257xxxxxE3                  |
|   | MAL2259xxxxxE3                  |
|   | MAL2299xxxxxE3                  |
|   | MAL2101xxxxxE3                  |
|   | MAL2102xxxxxE3                  |
|   | MAL2103xxxxxE3                  |
| ST                                      | MAL2104xxxxxE3                  |
|   | MAL2106xxxxxE3                  |
|   | MAL2110xxxxxE3                  |
|   | MAL2500xxxxxE3                  |
|   | MAL2501xxxxxE3                  |
|   | MAL2196xxxxxE3                  |
|   | MAL2220xxxxxE3                  |
| Double layer capacitors                 | MAL2225xxxxxE3                  |
|   | MAL2230xxxxxE3                  |
|   | MAL2235xxxxxE3                  |
|   | MAL8043055xxE3                  |
|   | MAL804313001E3                  |
| Accessories (clamps, cap nuts, washers) | MAL8043240xxE3                  |
| (ciamps, cap nate, washers)             | MAL804323321E3                  |
|   | MAL804324921E3                  |



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| VISHAY SPRAGUE |                                    |
|----------------|------------------------------------|
| SERIES         | REACH-223 COMPLIANT PART NUMBER    |
| Axial          | 34D (+ suffix "E3") (1)            |
|                | 39D (+ suffix "E3") (1)            |
|                | 53D (+ suffix "E3") <sup>(1)</sup> |
|                | 516D (all PNs)                     |
| Radial         | 515D (all PNs)                     |
|                | 517D (all PNs)                     |
|                | 757D (all PNs)                     |
| SI             | 80D (all PNs)                      |
| ST             | 36D (all PNs)                      |
|                | 36DX (all PNs)                     |
|                | 36DE (all PNs)                     |
|                | 36DY (all PNs)                     |

## Note

(1) **IMPORTANT:** affected are <u>only</u> part numbers <u>with suffix "E3"</u>. Example: 39D907G003EJ6**E3** (part numbers without suffix "E3" contain lead (Pb). Consequently, these PNs are incompliant to REACH-191 directive and above)

| VISHAY ROEDERSTEIN |                                 |
|--------------------|---------------------------------|
| SERIES             | REACH-223 COMPLIANT PART NUMBER |
| Radial             | MALREKA and EKA (all PNs)       |
|                    | MALREKB and EKB (all PNs)       |
|                    | MALREKC and EKC (all PNs)       |
|                    | MALREKE and EKE (all PNs)       |
|                    | MALREKV and EKV (all PNs)       |
| SMD                | MALSECA and ECA (all PNs)       |
|                    | MALSECL and ECL (all PNs)       |
|                    | MALSECV and ECV (all PNs)       |

| VISHAY OS-CON |                                 |
|---------------|---------------------------------|
| SERIES        | REACH-223 COMPLIANT PART NUMBER |
| SMD           | 94SVP (all PNs)                 |
|               | 94SVPD (all PNs)                |