

**PRODUCT NEWS UPDATE**  
**March 18, 2019**



## **FBR50xxx Series Relay : Terminate New Sale Promotion**

### **1. Product Series**

- FBR50 SERIES RELAYS FBR51, FBR52, FBR54 (FBR54 for particular customer)

### **2. Notification**

- Stop sales promotion of the FBR50 series relay for all new designs
- Alternate relay: FTR-G1, FTR-P3 and FBR53 series relays are electrically similar but **NOT** footprint compatible
- FBR50 series relay will change status from Active to Non-Promotional on our Website.
- Existing customers **with PO and Purchase history** >> will still continue to be supported.

### **3. Schedule**

- **EFFECTIVE DATE:** March 18, 2019

### **4. Attachments**

- Part Numbers
- Comparison table (FBR51,52 vs FTR-G1, FTR-P3, FBR53).

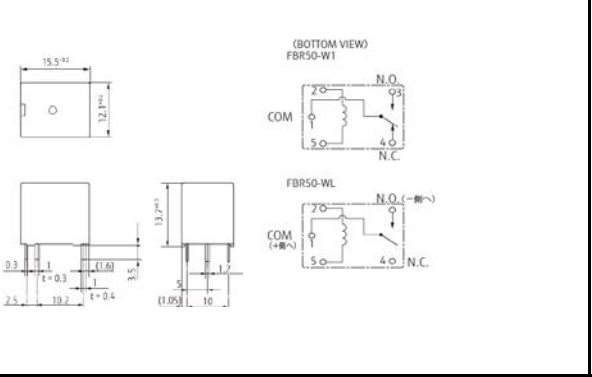
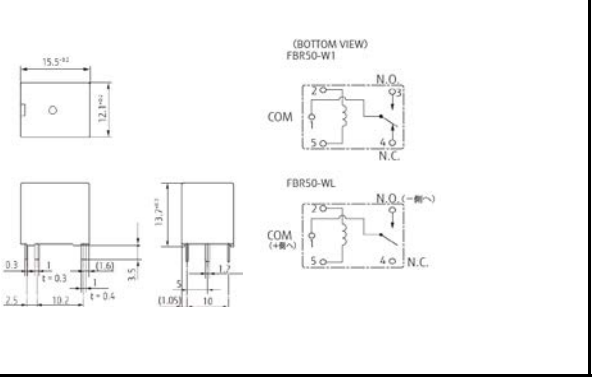
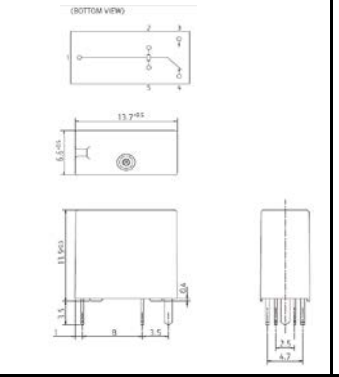
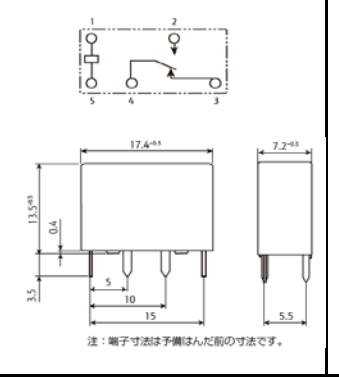
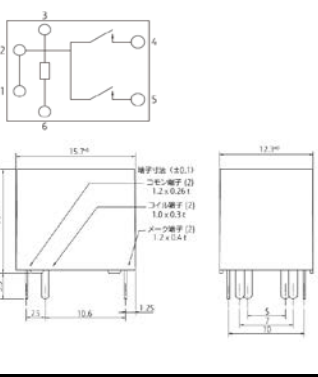
### **5. QUESTIONS**

Any questions contact your local Fujitsu Components Sales Rep  
<http://www.fujitsu.com/us/products/devices/components/contact/sales/relays/index.html>

<b>AFFECTED ORDERING Part Number</b>
FBR51D09-N
FBR51D09-Y
FBR51D12-N
FBR51D12-Y
FBR51ND06-N
FBR51ND06-W
FBR51ND06-W1
FBR51ND06-W1-LF
FBR51ND06-WL
FBR51ND06-W-LF
FBR51ND06-Y
FBR51ND09-E-PA
FBR51ND09-N
FBR51ND09-N-T
FBR51ND09-W
FBR51ND09-W1
FBR51ND09-W1/23-SA
FBR51ND09-W1-LF
FBR51ND09-W1-PA
FBR51ND09-W1-T1
FBR51ND09-WF
FBR51ND09-WF-T
FBR51ND09-WL
FBR51ND09-W-LF
FBR51ND09-WR
FBR51ND09-W-T
FBR51ND09-W-T1
FBR51ND09-Y
FBR51ND09-Y-T
FBR51ND09-Y-T1
FBR51ND10-N
FBR51ND10-N-H
FBR51ND10-N-SA
FBR51ND10-W
FBR51ND10-W1
FBR51ND10-W1-DF
FBR51ND10-W1-DF-LF
FBR51ND10-W1-DL
FBR51ND10-W1-HT
FBR51ND10-W1-HT-LF
FBR51ND10-W1-LF
FBR51ND10-W1-LF-M
FBR51ND10-W1-M
FBR51ND10-W1-S
FBR51ND10-W1-SA
FBR51ND10-W1-SA-3
FBR51ND10-W1-SA-LF
FBR51ND10-W1-SA-T1
FBR51ND10-W1-T1
FBR51ND10-WF
FBR51ND10-WF-LF
FBR51ND10-WF-SA

FBR51ND10-WF-SA-LF
FBR51ND10-W-H
FBR51ND10-WL
FBR51ND10-WL-DF
FBR51ND10-WL-DF-LF
FBR51ND10-WL-DL
FBR51ND10-WL-DL-LF
FBR51ND10-W-LF
FBR51ND10-WL-LF
FBR51ND10-W-NISSAN
FBR51ND10-W-NISSAN-T1
FBR51ND10-WR
FBR51ND10-WR-SA
FBR51ND10-W-SA
FBR51ND10-W-SA-3
FBR51ND10-W-SA-LF
FBR51ND10-Y
FBR51ND10-Y06
FBR51ND12-N
FBR51ND12-N03
FBR51ND12-N-H
FBR51ND12-N-LF
FBR51ND12-N-T
FBR51ND12-N-T1
FBR51ND12-W
FBR51ND12-W1
FBR51ND12-W1-DL
FBR51ND12-W1-H
FBR51ND12-W1-LF
FBR51ND12-W1-T1
FBR51ND12-W21
FBR51ND12-W21-P
FBR51ND12-W22
FBR51ND12-W24
FBR51ND12-W25
FBR51ND12-W-DF
FBR51ND12-W-DL
FBR51ND12-WF
FBR51ND12-WF-LF
FBR51ND12-W-H
FBR51ND12-W-H-LF
FBR51ND12-WL
FBR51ND12-W-LF
FBR51ND12-WL-LF
FBR51ND12-WR
FBR51ND12-W-T
FBR51ND12-W-T1
FBR51ND12-Y
FBR51ND12-Y-D
FBR51ND12-Y-T
FBR51ND12-Y-T1
FBR51ND24-WR
FBR52D09-N

FBR52D09-Y
FBR52D12-Y
FBR52ND06-N
FBR52ND06-W
FBR52ND06-W1
FBR52ND06-Y
FBR52ND09-N
FBR52ND09-W
FBR52ND09-W1
FBR52ND09-Y
FBR52ND10-N
FBR52ND10-W
FBR52ND10-W1
FBR52ND12-N
FBR52ND12-N-LF
FBR52ND12-W
FBR52ND12-W1
FBR52ND12-W1-D
FBR52ND12-W1-HT-SL
FBR52ND12-W1-LF
FBR52ND12-W20
FBR52ND12-W20-LF
FBR52ND12-W20-X
FBR52ND12-W99
FBR52ND12-W-D
FBR52ND12-W-D-LF
FBR52ND12-WF
FBR52ND12-WF-LF
FBR52ND12-W-H
FBR52ND12-W-LF
FBR52ND12-WR
FBR52ND12-Y
FBR52ND12-Y-D
FBR52ND12-Y-LF
FBR52ND24-W
FBR52ND24-W05
FBR52ND24-W05-LF
FBR52ND24-W-LF
FBR52ND24-WR
FBR54D12-W01
FBR54ND12-W01
FBR54ND12-W01-LF
FBR54ND12-W01-T
FBR54ND12-W01-T1
FRB52ND12-W1-LF

	FBR51_52	FBR51_52	FTR-G1	FTR-P3	FBR53
Parts number	FBR51ND**W1 (Contact gap 0.3mm) FBR52ND**W1 (Contact gap 0.6mm)	FBR51ND**WF/WL (Contact gap 0.3mm) FBR52ND**WF/WL (Contact gap 0.6mm)	FTR-G1CN**W1	FTR-P3CN**W1 contact gap 0.25mm FTR-P3CP**W1 contact gap 0.6mm	FBR53ND**-Y
Configuration	1c	1a	1c	1a (reflow type only), 1c	1 form U
Contact Material	Silver-tin oxide indium	Silver-tin oxide indium	Silver-tin oxide indium	Silver-tin oxide indium	Silver tin oxide
Contact Construction			Single		Single
Voltage drop (Initial)	Max 100mV(1A 12VDC)	Max 100mV(1A 12VDC)	Max 100mV(1A 12VDC)	Max 100mV(1A 12VDC)	Max 100mV(1A 12VDC)
Contact rating	25A 14VDC (Locked motor load)	14VDC-80W WF lamp load 14VDC-120W WL lamp load	25A 14VDC (Locked motor load)	25A 14VDC (Locked motor load)	25A 14VDC (Locked motor load)
Max. carrying current	35A(10 min) 30A(1 hour)	35A(10 min) 30A(1 hour)	25A(1 hour)	25A(1 hour)	30A
Max switching current	35A 16VDC(reference)	35A 16VDC(reference)	35A 16VDC(reference)	35A 16VDC(reference)	
Max. inrush current	60A(reference) Locked motor load	80A(reference) lamp load			60A(reference)
Min. switching load(reference)	1A 6VDC(reference)	1A 6VDC(reference)	1A 6VDC(reference)	1A 6VDC(reference)	1A 6VDC(reference)
Coil code	6.9,10,12V DC	6.9,10,12V DC	9,10,12V DC	9,10,12V DC	9,10,12V DC
Must operate voltage	60-65% rated voltage (at 20°C)	60-65% rated voltage (at 20°C)	60-65% rated voltage (at 20°C)	61-63% rated voltage (at 20°C)	60-63% rated voltage (at 20°C)
Must release voltage	7.7-8.3% rated voltage (at 20°C)	7.7-8.3% rated voltage (at 20°C)	7.7-8.3% rated voltage (at 20°C)	7.7-8.3% rated voltage (at 20°C)	7.7-8.3% rated voltage (at 20°C)
Rated power					
Operating temperature range	-40°C~+85°C (no frost)	-40°C~+85°C (no frost)	-40°C~+85°C (no frost)	-40°C~+85°C 125°C(Reflow type) (no frost)	-40°C~+125°C (no frost)
Operate timing	Max 10ms (without bounce) (at nominal voltage)	Max 10ms (without bounce) (at nominal voltage)	Max 10ms (without bounce) (at nominal voltage)	Max 10ms (without bounce) (at nominal voltage)	Max 10ms (without bounce) (at nominal voltage)
Release timing	Max 5ms (without bounce) (at nominal voltage)	Max 5ms (without bounce) (at nominal voltage)	Max 5ms (without bounce) (at nominal voltage)	Max 5ms (without bounce) (at nominal voltage)	Max 5ms (without bounce) (at nominal voltage)
Mechanical life	Min 10000K operations	Min 10000K operations	Min 10000K operations	Min 10000K operations	Min 10000K operations
Electrical life	Min 200K operations (Contact rating)	Min 2500K (Contact rating) Inrush 11A 14VDC 0.35S ON/35S OFF  Min 100K	Min 100K 25A 14VDC (Power window motor) Min 100K 20A 14VDC (Door lock motor)	Min 100K operations (Contact rating)	Min 100K operations (Contact rating)
Vibration resistance	Misoperation 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration Endurance 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration	Misoperation 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration Endurance 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration	Misoperation 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration Endurance 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration	Misoperation 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration Endurance 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration	Misoperation 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration Endurance 10-200Hz acceleration 44m/s <sup>2</sup> (4.5G) constant acceleration
Shock	Misoperation 100m/s <sup>2</sup> Endurance 1,000m/s <sup>2</sup>	Misoperation 100m/s <sup>2</sup> Endurance 1,000m/s <sup>2</sup>	Misoperation 100m/s <sup>2</sup> Endurance 1,000m/s <sup>2</sup>	Misoperation 100m/s <sup>2</sup> Endurance 1,000m/s <sup>2</sup>	Misoperation 100m/s <sup>2</sup> Endurance 1,000m/s <sup>2</sup>
Insulation resistance (500VDC)	Min 100MΩ	Min 100MΩ	Min 100MΩ	Min 100MΩ	Min 100MΩ
Dielectric strength	open contacts 500VAC(50/60Hz) 1min Coil-contacts 500VAC(50/60Hz) 1min	open contacts 500VAC(50/60Hz) 1min Coil-contacts 500VAC(50/60Hz) 1min	open contacts 500VAC(50/60Hz) 1min Coil-contacts 500VAC(50/60Hz) 1min	open contacts 500VAC(50/60Hz) 1min Coil-contacts 500VAC(50/60Hz) 1min	open contacts 500VAC(50/60Hz) 1min Coil-contacts 500VAC(50/60Hz) 1min
Surge strength (Coil-contacts)					
Dimensions, Weight	12.1 x 15.5 x 13.7 mm Approx. 6g	12.1 x 15.5 x 13.7 mm Approx. 6g	6.6 x 13.7 x 13.5 mm Approx. 3.5g	7.2 x 17.4 x 13.5 mm Approx. 5g 7.2 x 17.4 x 14.1 mm (reflow type)	12.3 x 15.7 x 14.0 mm Approx. 6g
square measure	188mm <sup>2</sup>	188mm <sup>2</sup>	90mm <sup>2</sup>	125mm <sup>2</sup>	193mm <sup>2</sup>
Volume	2569mm <sup>3</sup>	2569mm <sup>3</sup>	1220mm <sup>3</sup>	1691mm <sup>3</sup> (Reflow type) 1766mm <sup>3</sup>	2704mm <sup>3</sup>
Schematics					
Terminal compatibility to FBR51_52	-	-	No	No	No
Enclosure	Plastic sealed	Plastic sealed	Plastic sealed	Plastic sealed	Plastic sealed
Terminal	Through hole	Through hole	Through hole	Through hole	Through hole
Safety standards	Nil	Nil	Nil	Nil	Nil