

PRELIMINARY

FUJITSU Component Relay FBR56-HW series Automotive relays

Fujitsu 1 Pole, 70 A relay

Features

- Smallest high power 70A relay (@23 °C, rating coil voltage)
- 1 pole 70A, 1 form C
- High temperature grade (-40°C to +125°C)
- This relay is able to replace the Mini ISO relay
- RoHS compliant



FBR56-HW

Part numbers

| Example | FBR56 (a) | N (b) | D12 (c) | -Y (d) | -HW (e) | -RW (f) |
|---------|-------------------------|----------|-------------------|-----------|---------------------------------------|------------|
| (a) | Series name | | FBR56-HW series | | | |
| (b) | Structure | | N Nil | | Plastic sealed type Flux free type | |
| (c) | Nominal voltage | | D09 D10 D12 | | 9 VDC 10 VDC 12VDC | |
| (d) | Contact material | | Y | | Silver-tin oxide | |
| (e) | Carrying current rating | | HW | | 70A | |
| (f) | Soldering | | Nil RW | | Standard Reflow version | |

Coil Data Chart

| Coil number | Nominal voltage (VDC) | Coil Resistance (ohms) (tolerance of 10%) | Operate Voltage (VDC) | Release Voltage (VDC) | Nominal Power [W] |
|-------------|-----------------------|--|-----------------------|-----------------------|-------------------|
| D09 | 9 | 170 | 5.4 | 0.7 | Approx. 0.45 |
| D10 | 10 | 220 | 6.3 | 0.8 | |
| D12 | 12 | 320 | 7.3 | 1.0 | |

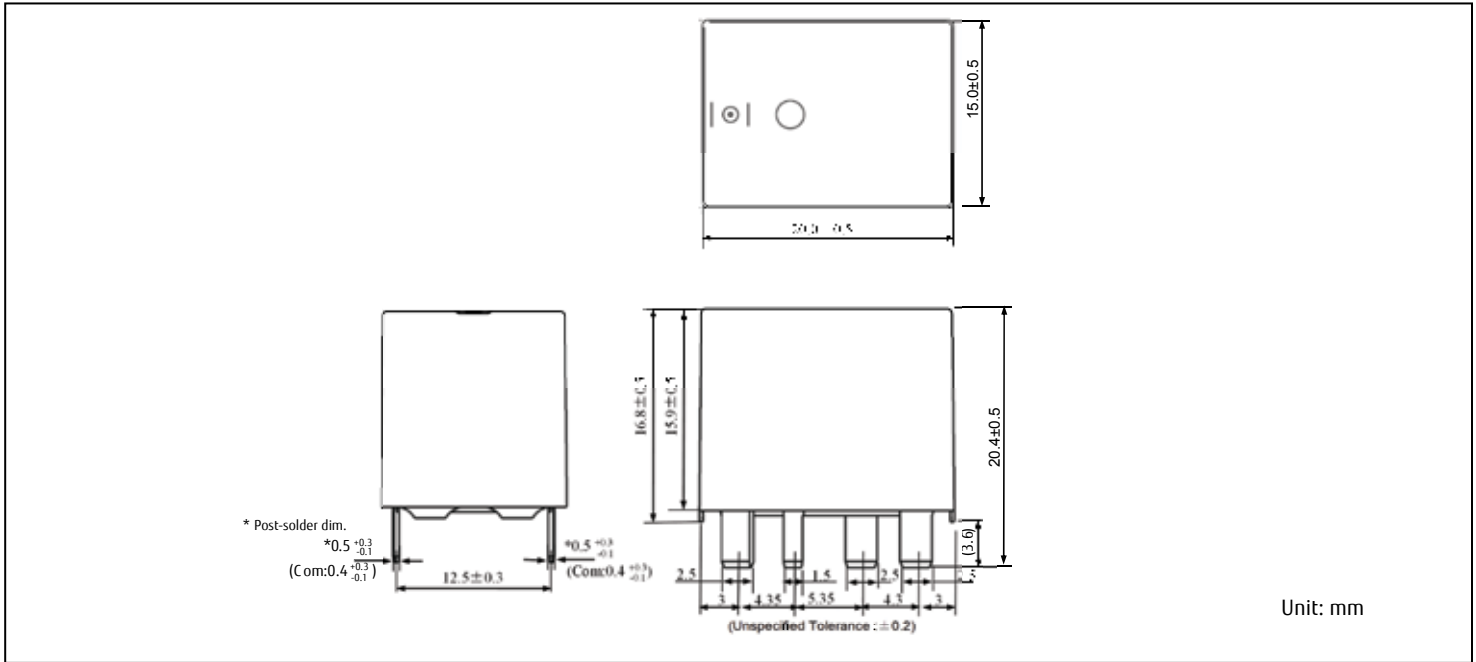
All values in the table are measured at 20°C.

■ Specifications

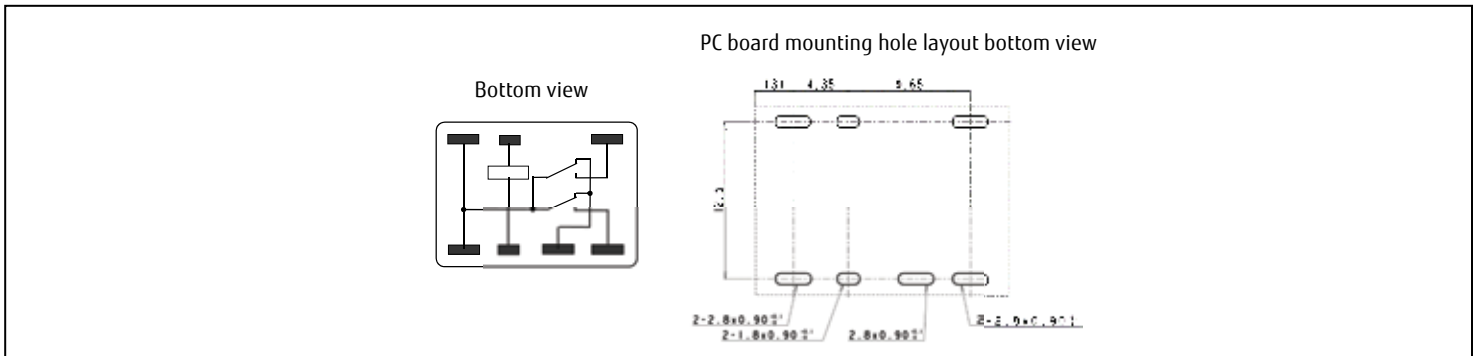
| Item | Specifications | | |
|----------------------|------------------------|---|------------------|
| Contact | Arrangement | 1c (1 form C) | |
| | Material | Silver tin oxide | |
| | Rating | N.O.: 70A, 14VDC N.C.: 30A, 14VDC | |
| | Max. carrying current | N.O.: 70A (@ rating coil voltage) N.C.: 30A | |
| | Max. inrush current | 220A inrush (N.O.) | |
| | Min. switching load | 1A 6VDCX (reference) | |
| | Contact voltage drop | Max. 100mV (at 1A, 12VDC) | |
| Coil | Operating temperature | -40 to +125°C (no frost) | |
| Time value | Operate | Max. 10ms (at nominal voltage, without bounce) | |
| | Release | Max. 5ms (at nominal voltage, without diode, without bounce) | |
| Insulation | Resistance (at 500VDC) | Min. 100 MΩ | |
| | Dielectric Strength | Between contacts | 500VAC, 1 minute |
| | | Between coil and contacts | 500VAC, 1 minute |
| Life | Mechanical | Min. 1×10 ⁶ operations min. | |
| | Electrical Resistive | N.O. side 70A: 50 x 10 ³ operations min. N.O. side 60A: 100 x 10 ³ operations min. N.C. side 30A: 100 x 10 ³ operations min. | |
| Vibration resistance | Misoperation | 10 to 55 Hz at double amplitude of 1.5mm | |
| | Endurance | 10 to 55 Hz at double amplitude of 1.5mm | |
| Shock resistance | Misoperation | Min. 100m/s ² (11±1 ms) | |
| | Endurance | Min. 1,000m/s ² (6±1 ms) | |
| Weight | | 13g | |

Normal temperature and humidity

■ Dimensions



■ Schematics



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