

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	

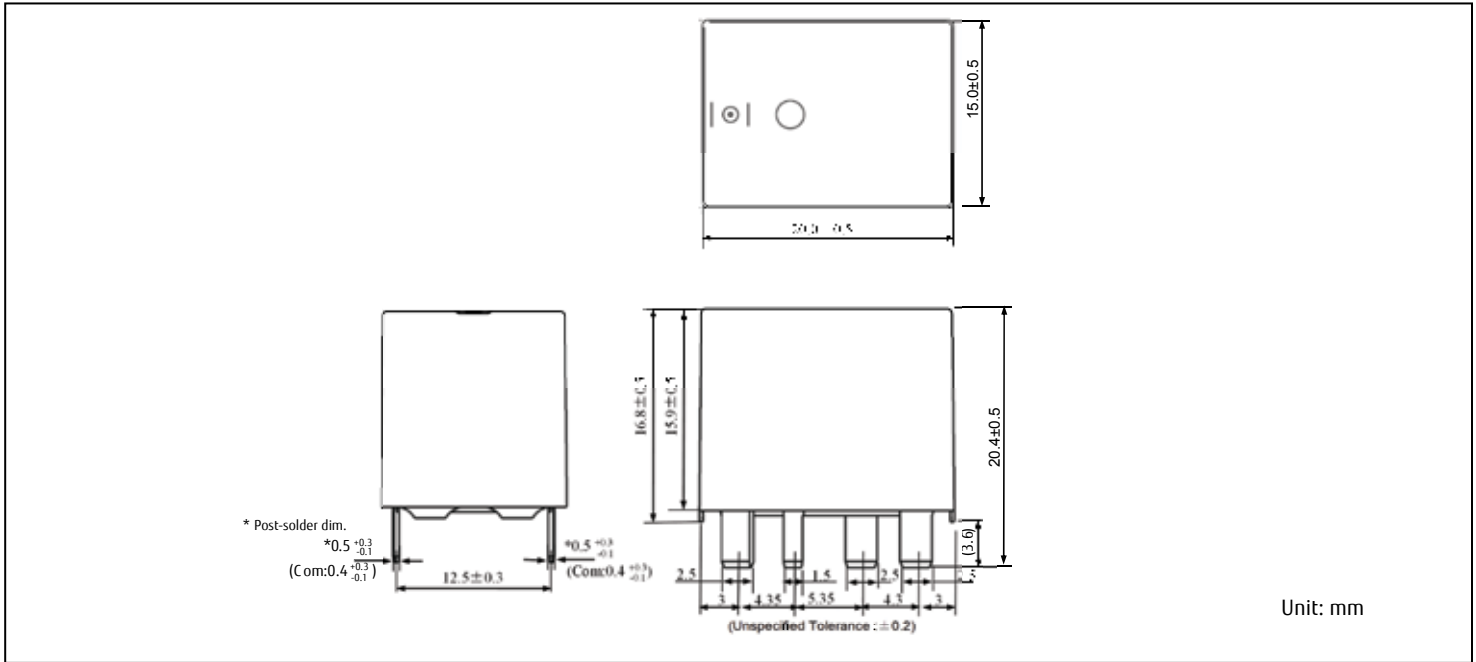
All values in the table are measured at 20°C.

■ Specifications

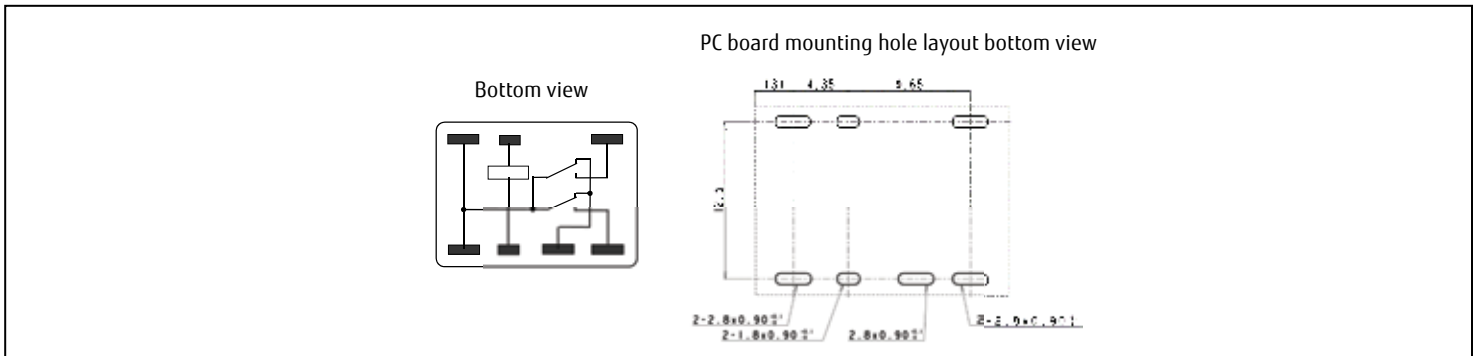
Item	Specifications		
Contact	Arrangement	1c (1 form C)	
	Material	Silver tin oxide	
	Rating	N.O.: 70A, 14VDC N.C.: 30A, 14VDC	
	Max. carrying current	N.O.: 70A (@ rating coil voltage) N.C.: 30A	
	Max. inrush current	220A inrush (N.O.)	
	Min. switching load	1A 6VDCX (reference)	
	Contact voltage drop	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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