

POWER RELAY

1 POLE - 32A latching relay screw hole terminals

FTR-K3LV Series

■ FEATURES

- 1 pole, 32A
 - 1 form A contact
 - Surge strength (B/T open contacts) 2.5kV
 - High insulation in small package (between coil and contacts)
 - Dielectric strength: AC 4,000V
 - Surge strength: 6,000V
 - Low coil power consumption: 1,200mW
 - Plastic materials: Flammability; UL94 V-0
 - Contains no lead and features cadmium-free contacts for eco-program
 - Flux proof (RT II)
 - RoHS compliant.
- Please see page 4 for more information



■ PARTNUMBER INFORMATION

[Example] FTR-K3 L V B 012 W
 (a) (b) (c) (d) (e) (f)

(a)	Relay type	FTR-K3 : FTR-K3 Series
(b)	Operate function	L : Latching type
(c)	Contact configuration	V : Screw (M4) tab terminal
(d)	Coil type	B : Standard (1,200mW)
(e)	Coil rated voltage	012 : 5.....48 VDC Coil rating table at page 2
(f)	Contact material	W : Silver alloy

E.g.: Ordering code: FTR-K3LVB012W Actual marking: K3LVB012W

■ SPECIFICATION

Item			FTR-K3LV
Contact Data	Configuration		1 form A
	Material		Silver alloy (AgSnO ₂)
	Resistance (initial)		Max. 30 mOhm at 6VDC, 1A
	Contact rating (resistive)		32A, 250VAC
	Max. carrying current		32A, 45A 30 minutes
	Max. switching voltage		250VAC
	Max. switching power		8,000VA
	Max. switching current		32A
	Min. switching load *		100mA, 5VDC (reference value)
Life	Mechanical		Min. 1 x 10 ⁶ operations
	Electrical (Resistive)		32A / 250VAC, min. 30 x 10 ³ operations
Coil Data	Rated power (at 20 °C)		1,200mW
	Ambient temperature		-40 °C to +85 °C
Timing Data	Set (at nominal voltage)		Max. 20ms (without bounce, without diode)
	Reset (at nominal voltage)		Max. 20ms (without bounce, without diode)
	Coil excitation		Min. 30ms, max. 1,000ms
Insulation	Resistance (initial)		Min. 1,000MOhm at 500VDC
	Dielectric strength	Open contacts	2,500VAC (50/60Hz) 1min
		Contacts to coil	4,000VAC (50/60Hz) 1min
	Surge strength	Contacts to coil	6,000V / 1.2 x 50µs standard wave
Other	Vibration resistance	Misoperation>1us	10 to 55Hz double amplitude 1.65mm
		Endurance	10 to 55Hz double amplitude 2.0mm
	Shock	Misoperation>1us	Min. 200m/s ² (11 ± 1ms)
		Endurance	Min. 1,000m/s ² (6 ± 1ms)
	Weight		Approximately 27g
	Sealing		RT II

* Minimum switching loads mentioned above are reference values. Please perform the confirmation test with actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

■ COIL RATING

Coil Code	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Operating range (Set/reset)		Rated Power (mW)
			Min. voltage (VDC) *	Max. voltage (VDC) *	
005	5	21	4.0	7.5	1,200
012	12	120	9.6	18.0	
024	24	480	19.2	36.0	
048	48	1,920	38.4	72.0	

Note: All values in the table are valid for 20°C and zero contact current.

* Specified operate values are valid for pulse wave voltage.

■ COIL POLARITY

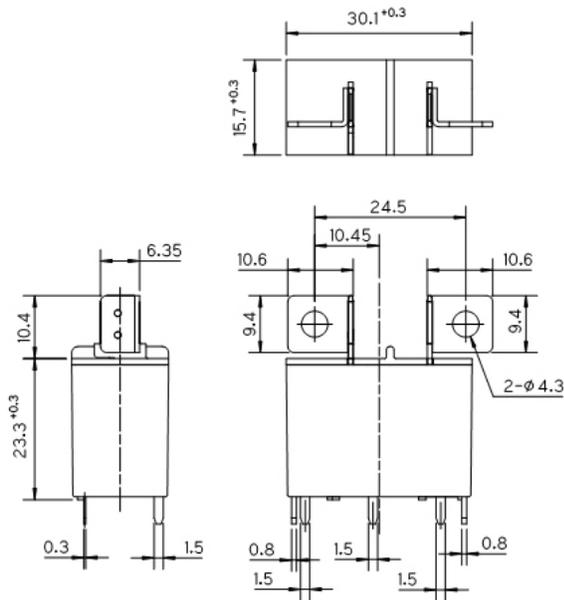
Coil terminal	A	B	C
Set	-	+	
Reset		+	-

■ SAFETY STANDARDS (Plan)

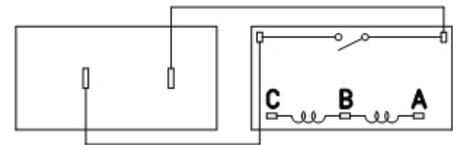
Type	Compliance	Contact rating

■ DIMENSIONS

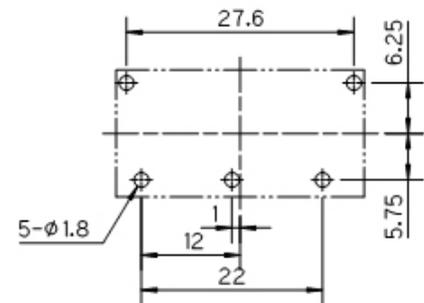
● Dimensions



● Schematics (BOTTOM VIEW)



● PC board mounting hole layout (BOTTOM VIEW)



Unit: mm

RoHS Compliance and Lead Free Information

1. General Information

- All relays produced by Fujitsu Components are compliant with RoHS directive 2011/65/EU including amendments.
- Cadmium as used in electrical contacts is exempted from the RoHS directives.
As per Annex III of directive 2011/65/EU.
- All relays are lead-free. Please refer to Lead-Free Status Info for older date codes at:
<http://www.fujitsu.com/downloads/MICRO/fcai/relays/lead-free-letter.pdf>
- Lead free solder plating on relay terminals is Sn-3.0Ag-0.5Cu, unless otherwise specified.
This material has been verified to be compatible with PbSn assembly process.

2. Recommended Lead Free Solder Condition

- Recommended solder Sn-3.0Ag-0.5Cu.

Flow Solder Condition:

Pre-heating: maximum 120 °C
within 9 sec.
Soldering: dip within 5 sec. at
255 °C ± 5 °C solder bath
Relay must be cooled by air immediately
after soldering

Solder by Soldering Iron:

Soldering Iron 30-60W
Temperature: maximum 350-360 °C
Duration: maximum 3 sec.

We highly recommend that you confirm your actual solder conditions

3. Moisture Sensitivity

- Moisture Sensitivity Level standard is not applicable to electromechanical relays, unless otherwise indicated.

4. Tin Whiskers

- Dipped SnAgCu solder is known as presenting a low risk to tin whisker development. No considerable length whisker was found by our in house test.

Fujitsu Components International Headquarter Offices

Japan

Fujitsu Component Limited
 Gotanda-Chuo Building
 3-5, Higashigotanda 2-chome, Shinagawa-ku
 Tokyo 141, Japan
 Tel: (81-3) 5449-7010
 Fax: (81-3) 5449-2626
 Email: promothq@ft.ed.fujitsu.com
 Web: www.fcl.fujitsu.com

North and South America

Fujitsu Components America, Inc.
 250 E. Caribbean Drive
 Sunnyvale, CA 94089 U.S.A.
 Tel: (1-408) 745-4900
 Fax: (1-408) 745-4970
 Email: components@us.fujitsu.com
 Web: <http://us.fujitsu.com/components>

Europe

Fujitsu Components Europe B.V.
 Diamantlaan 25
 2132 WV Hoofddorp
 Netherlands
 Tel: (31-23) 5560910
 Fax: (31-23) 5560950
 Email: info@fceu.fujitsu.com
 Web: emea.fujitsu.com/components/

Asia Pacific

Fujitsu Components Asia Ltd.
 102E Pasir Panjang Road
 #01-01 Citilink Warehouse Complex
 Singapore 118529
 Tel: (65) 6375-8560
 Fax: (65) 6273-3021
 Email: fcal@fcal.fujitsu.com
 Web: <http://www.fujitsu.com/sg/services/micro/components/>

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