

POWER RELAY

1 POLE - 25A Latching Relay

FTR-K3L Series

■ FEATURES

- 1 pole, 25A, 1 form A
- 2 coils latching type
- High insulation (between coil and contacts)
Insulation distance:
clearance min. 6.4mm
creepage min. 9.5mm
Dielectric strength: 5,000VAC
Surge strength: 8,500V
- Cadmium free contact for eco-program
- Plastic materials
- UL 94 flame class V-0
- Flux proof, cat II
- RoHS compliant
Please see page 5 for more information



■ PARTNUMBER INFORMATION

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

(a)	Relay type	FTR-K3: FTR-K3 Series
(b)	Operating function	L : Latching type
(c)	Contact configuration	A : 1 form A / PCB type J : 1 form A / Tab type
(d)	Coil power	B : Standard sensitive (0.9W)
(e)	Coil rated voltage	012 : 5.....24VDC Coil rating table at page 3
(d)	Contact material	W : AgSnO ₂

Actual marking does not carry the type name : "FTR"

E.g.: Ordering code: FTR-K3LAB012W

Actual marking: K3LAB012W

■ SPECIFICATION

Item			FTR-K3L
Contact Data	Configuration		1 form A
	Construction		Single
	Material		Silver tin oxide (AgSnO ₂)
	Resistance (initial)		Max. 100 mOhm at 6VDC, 1A
	Contact rating (resistive)		25A, 250VAC
	Max. carrying current		30A
	Max. switching voltage		250VAC
	Max. switching power		6,250VA
	Max. switching current		25A
	Min. switching load *		100mA, 5VDC
Life	Mechanical		Min. 1 x 10 ⁶ operations
	Electrical		25A, 250VAC, min. 100 x 10 ³ operations
Coil Data	Rated power (at 20 °C)		900mW
	Operating temperature range		-40 °C to +60 °C (no frost)
Timing Data	Set (at nominal voltage)		Max. 20ms (without bounce)
	Reset (at nominal voltage)		Max. 20ms (without bounce)
	Coil excitation time (at nominal voltage)		Min. 30ms
Insulation	Resistance (initial)		Min. 1,000MOhm at 500VDC
	Dielectric strength	Between contacts	1,000VAC (50/60Hz) 1min
		Between coil to contacts	5,000VAC (50/60Hz) 1min
	Surge strength	Coil to contacts	8,500V / 1.2 x 50µs standard wave
	Clearance		6.4mm
	Creepage		9.5mm
Other	Vibration resistance	Misoperation>1us	10 to 55Hz double amplitude 1.5mm
		Endurance	10 to 55Hz double amplitude 1.5mm
	Shock	Misoperation>1us	Min. 200m/s ² (11 ± 1ms)
		Endurance	Min. 1,000m/s ² (6 ± 1ms)
	Weight		Approximately 25 g
	Sealing		Flux proof cat 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)	Set/Reset Voltage		Rated Power (mW)
			Min. (VDC) *	Max. (VDC) *	
005	5	28	4.0	9.0	900
012	12	160	9.6	21.6	
024	24	640	19.2	43.2	

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

* Specified operate values are valid for pulse wave voltage.

■ **SAFETY STANDARDS**

Type	Compliance	Contact rating
UL	UL 508	Flammability: UL 94-V0 (plastics)
		25A, 277VAC
VDE	0435	25A, 250VAC, 60°C

■ **COIL POLARITY**

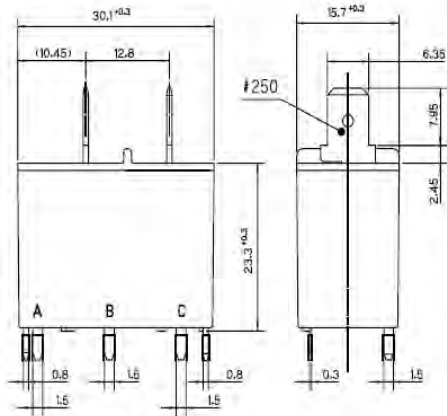
See schematics at page 4.

Coil terminal	A	B	C
Set	-	+	
Reset		+	-

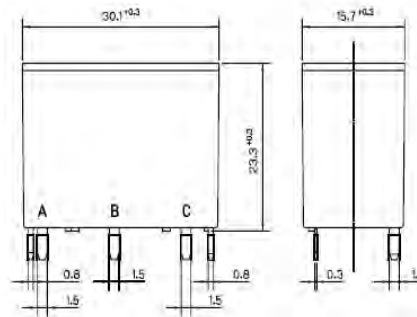
■ DIMENSIONS

● External dimensions

Type J



Type A

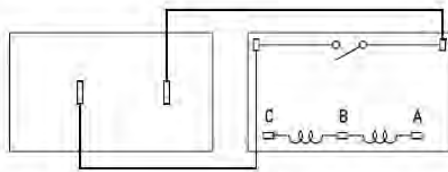


● Schematics

Type J

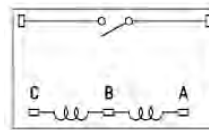
TOP VIEW

BOTTOM VIEW

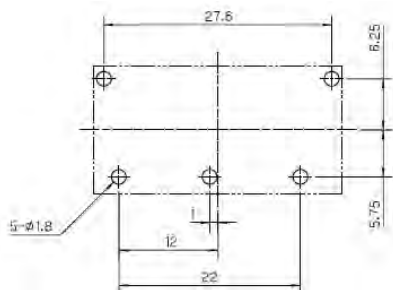


Type A

BOTTOM VIEW



● PC board mounting hole layout (BOTTOM VIEW)



Unit: mm

RoHS Compliance and Lead Free Information

1. General Information

- All signal and power relays produced by Fujitsu Components are compliant with RoHS directive 2002/95/EC including amendments.
- Cadmium as used in electrical contacts is exempted from the RoHS directives on October 21st, 2005. (Amendment to Directive 2002/95/EC)
- All of our signal and power relays are lead-free. Please refer to Lead-Free Status Info for older date codes at: <http://www.fujitsu.com/us/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 Profile

- Recommended solder Sn-3.0Ag-0.5Cu.

Flow Solder condition:

Pre-heating: maximum 120°C
Soldering: dip within 5 sec. at
260°C solder bath

Solder by Soldering Iron:

Soldering Iron
Temperature: maximum 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/>

©2010 Fujitsu Components Europe B.V. All rights reserved. All trademarks or registered trademarks are the property of their respective owners.

The contents, data and information in this datasheet are provided by Fujitsu Component Ltd. as a service only to its user and only for general information purposes.

The use of the contents, data and information provided in this datasheet is at the users' own risk.

Fujitsu has assembled this datasheet with care and will endeavor to keep the contents, data and information correct, accurate, comprehensive, complete and up to date.

Fujitsu Components Europe B.V. and affiliated companies do however not accept any responsibility or liability on their behalf, nor on behalf of its employees, for any loss or damage, direct, indirect or consequential, with respect to this datasheet, its contents, data, and information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof.

Nor do Fujitsu Components Europe B.V. and affiliated companies accept on their behalf, nor on behalf of its employees, any responsibility or liability for any representation or warrant of any kind, express or implied, including warranties of any kind for merchantability or fitness for particular use, with respect to these datasheets, its contents, data, information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof. Rev. December 07, 2010



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.