FUJITSU

POWER RELAY
1 POLE - 3, 5A Medium Load Control
JY Series

■ FEATURES

- UL, CSA, VDE recognized
- High sensitivity and low power consumption
- High insulation
- Wide operating range
- DIL pitch terminals
- Plastic sealed type, RTIII
- Socket mounting type and socket available
- Compatible with solid state relays type SJ
- RoHS compliant.
  Please see page 7 for more information

■ PARTNUMBER INFORMATION

[Example]

JY	-	12	H	E	-	K	P*
(a)		(b)	(c)	(d)		(e)	(f)

(a)	Relay type	JY	: JY Series
(b)	Coil rated voltage	12	: 4.5....48VDC Coil rating table at page 3
(c)	Contact style	Nil H W	: 3A (Single contact) : 5A (Single contact) : 3A (Bifurcated contact)
(d)	Contact material	Nil Nil E	: Gold-plate silver cadmium oxide (single contact type) : Gold overlay silver alloy (bifurcated contact type) : Silver cadmium oxide (single contact type)
(e)	Enclosure	K	: Plastic sealed type, RTIII
(f)	Terminal type	Nil P	: PC board mounting type : Socket mounting type (without JY-W)

Note: Actual marking omits the hyphen (-) of (*)

■ SPECIFICATION

Item			3A Type			5A Type	
			JY - ( ) W	JY - ( )	JY - ( ) E	JY - ( ) H	JY - ( ) HE
Contact Data	Configuration		1 form A (SPST-NO)				
	Construction		Bifurcated	Single			
	Material		Gold-overlay silver alloy AgNi	Gold-plate silver cadmium oxide	Silver cadmium oxide	Gold-plate silver cadmium oxide	Silver cadmium oxide
	Resistance (initial) (at 6 VDC, 1A)		Max. 30 mOhm		Max. 100 mOhm	Max. 30 mOhm	Max. 100 mOhm
	Contact rating		3A, 250VAC / 30VDC		5A, 250VAC / 30VDC		
	Max. carrying current		5A				
	Max. switching voltage		250VAC / 150 VDC				
	Max. switching power		750VA, 90W		1,250VA, 150W		
	Max. switching current		3A				
	Min. switching load *		0.1mA 100 mVDC	10mA 5VDC	100mA 5VDC	10mA 5VDC	100mA 5VDC
Life	Mechanical		Min. 20 x 10^6 operations				
	Electrical		Min. 100 x 10^3 operations (contact rating)				
Coil Data	Rated power (at 20 °C)		200 mW (48V type: 360 mW)				
	Operate power (at 20 °C)		100 mW (48V type: 170 mW)				
	Operating temperature range		-40 °C to +90 °C (no frost) (48V type: +80 °C)				
Timing Data	Operate (at nominal voltage)		Max. 6 ms (without bounce)				
	Release (at nominal voltage)		Max. 3 ms (no diode)				
Insulation	Resistance (initial)		Min. 1,000MOhm at 500VDC				
	Dielectric strength	Open contacts	750VAC, 1min				
		Contacts to coil	2,000VAC, 1min				
	Surge strength	Coil to contacts	4,000V / 1.2 x 50μs standard wave				
Other	Vibration resistance	Misoperation	10 to 55Hz double amplitude 1.5 mm				
		Endurance	10 to 55Hz double amplitude 4.5 mm				
	Shock	Misoperation	Min. 100m/s² (11 ± 1ms)				
		Endurance	Min. 1,000m/s² (6 ± 1ms)				
	Weight		Approximately 5 g				
	Sealing		Plastic sealed, RTIII				

* 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 contions and expected reliability levels.

■ COIL RATING

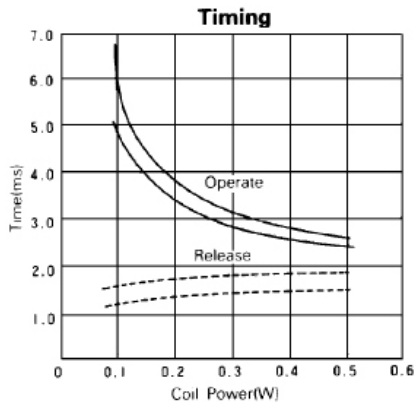
Coil Code 5A type	Coil Code 3A type	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Must Operate Voltage (VDC) *	Must Release-Voltage (VDC) *	Rated Power (mW)
4.5	4.5	4.5	100	3.1	0.23	200
5	5	5	125	3.5	0.25	
6	6	6	180	4.2	0.3	
9	9	9	405	6.3	0.45	
12	12	12	720	8.4	0.6	
18	18	18	1,620	12.6	0.9	
24	24	24	2,880	16.8	1.2	
48	48	48	6,400	32.6	2.4	360
101	-	23.5	2,760	15.5	1.18	200
105	-	12	720	8.4	0.6	
107	-	5	125	3.5	0.25	

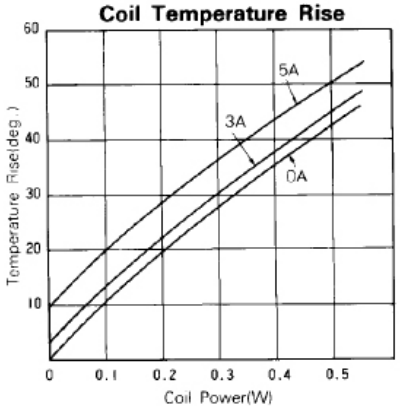
Note: All values in the table are valid for 20°C and zero contact current.
* Specified operate values are valid for pulse wave voltage.

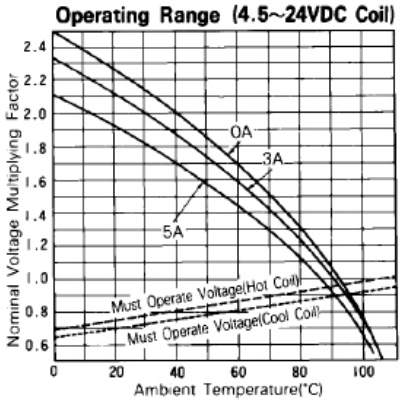
■ SAFETY STANDARDS

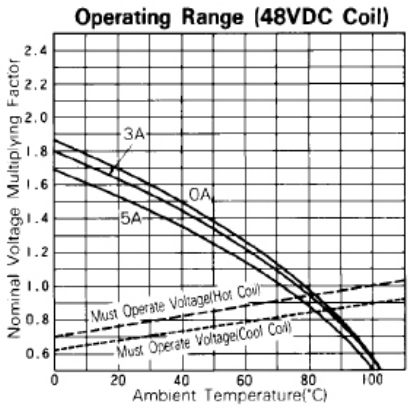
Type	Compliance	Contact rating
UL	UL 508 E56140	Flammability: UL 94-V0 (plastics)
CSA	C22.2 No. 14 LR 35579	[JY-H, JY-HE] 5A, 250 VAC / 30 VDC (resistive) 1/8 HP, 125VAC, 250 VAC Pilot duty code C150 [JY, JY-W, JY-E] 3A, 250 VAC / 30 VDC (resistive) 1/10 HP, 125VAC, 250 VAC Pilot duty: C150
VDE (JY..W-K type)	VDE 0435 part 201	3A, 250VAC, cos φ1, 100K 3A, 30VDC, 0msec. 100K

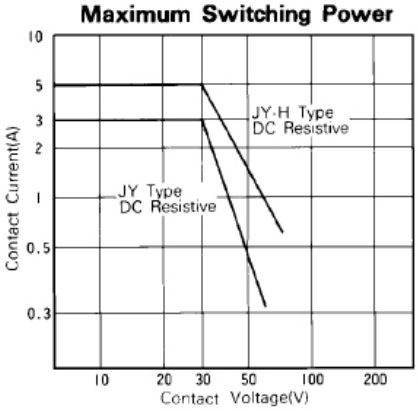
■ CHARACTERISTIC DATA

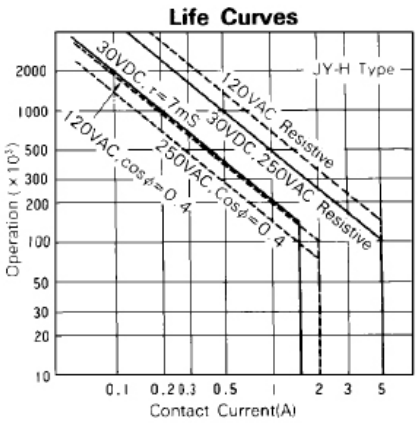




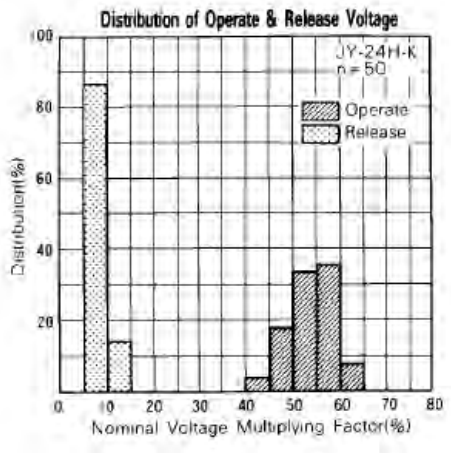


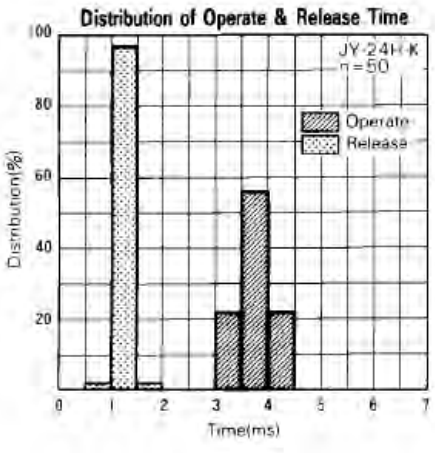


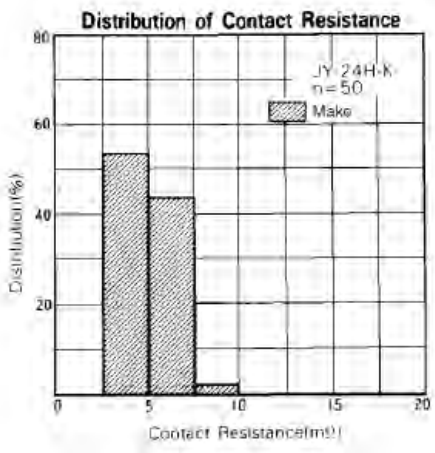




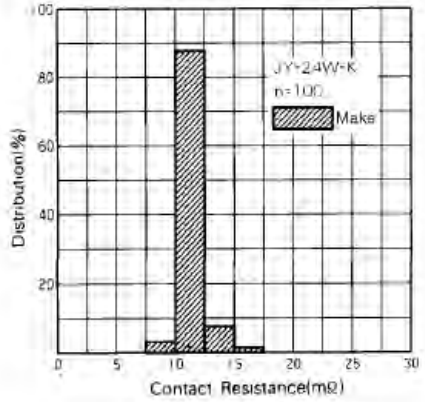
■ REFERENCE DATA



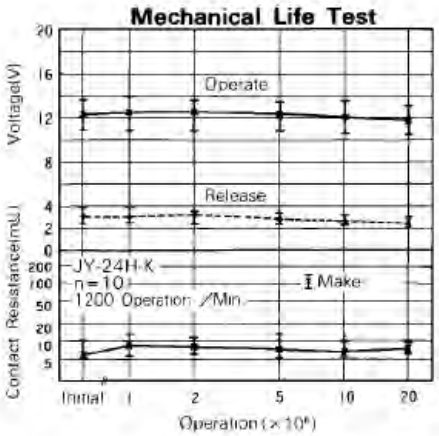




Distribution of Contact Resistance



Mechanical Life Test



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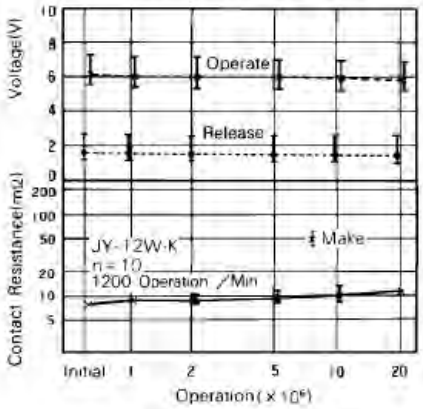

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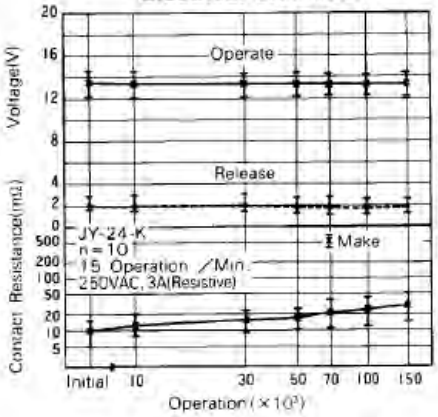

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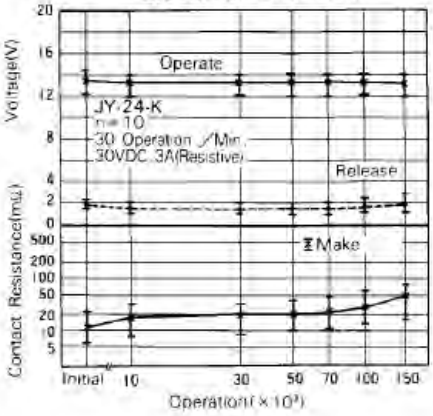

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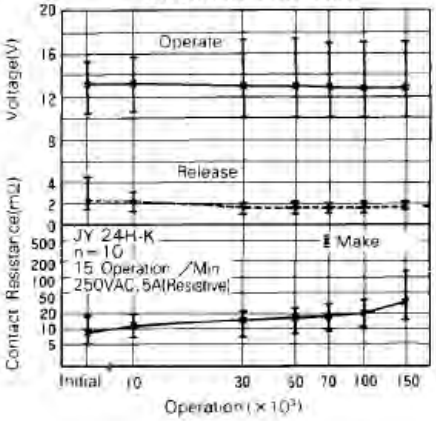

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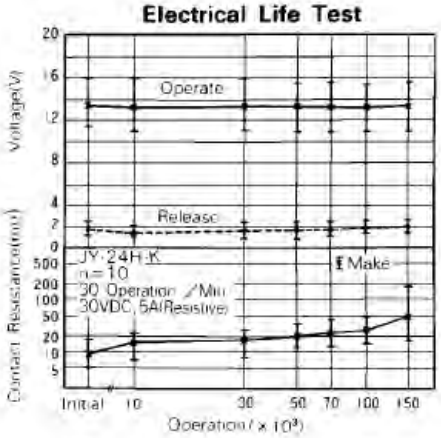

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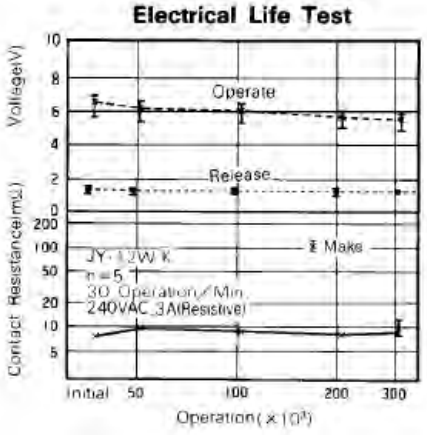

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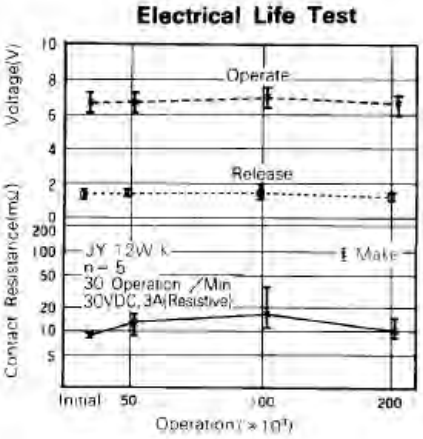

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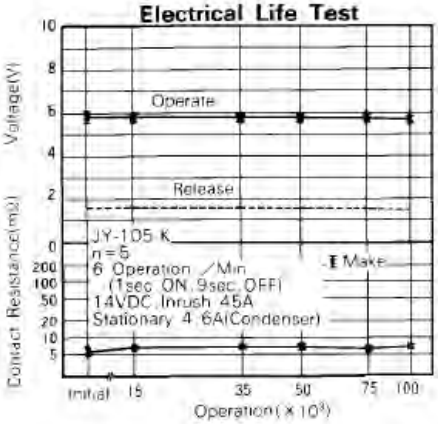
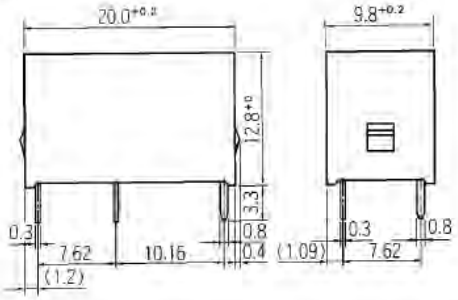


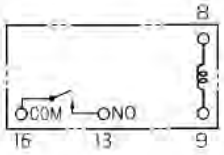
■ DIMENSIONS

• **Dimensions**

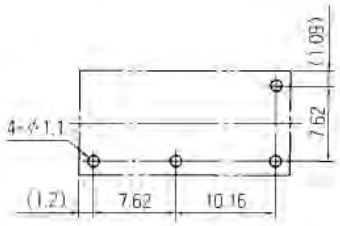
JY Type



● **Schematics**
(BOTTOM VIEW)

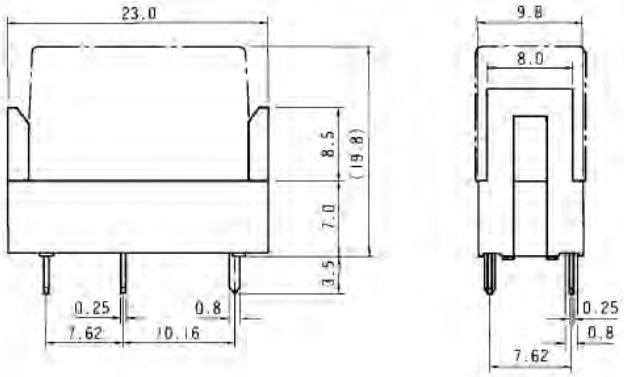


● **PC board mounting hole layout**
(BOTTOM VIEW)

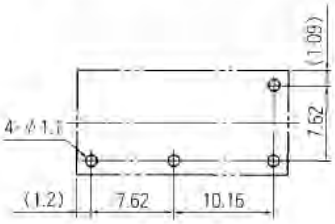


Unit: mm

■ SOCKET DIMENSIONS



● **PC board mounting hole layout**



Unit: mm

■ NOTES

1. Socket ordering code : JK-4N
2. Standard IC socket is not recommended.
   Please use socket "JK-4N".

RoHS Compliance and Lead Free Information

1. General Information

- All signal and power relays produced by Fujitsu Components are compliant with RoHS directive 2002/95EC 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/

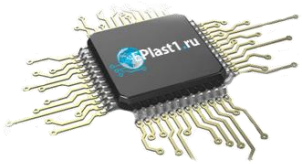
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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.