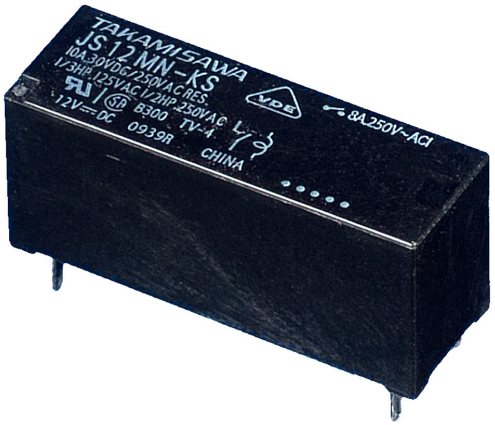
FUJITSU

POWER RELAY
1 POLE - 8A (65A High Inrush Current)
JS-KS Series

■ FEATURES



- Inrush current 65A, 1,000W, lamp load
- UL class B (130°C) coil wire insulation class
- 1 form A (SPST-NO)
- Contact application 3 (CA 3)
- Low profile and space saving:
  - Height: 12.5 mm
  - Mounting space: 290 mm^2
- High sensitivity in small package
  - Operating power - 110 to 140mW
  - Nominal power - 220 to 290mW
- High insulation in small package
  - Insulation distance : 8 mm (between coil and contacts)
  - Dielectric strength : 5,000 VAC
  - Surge strength : 10,000 V
- Plastic materials
  - UL 94 flame class V-0
  - UL CTI level class 2
- Plastic sealed type, RTIII
- RoHS compliant.

Please see page 6 for more information

■ PARTNUMBER INFORMATION

[Example]

JS	-	12	M	N	-	K	S
(a)	(*)	(b)	(c)	(d)		(e)	(f)

(a)	Relay type	JS	: JS Series
(b)	Coil rated voltage	12	: 5....60VDC Coil rating table at page 3
(c)	Contact configuration	M	: 1 form A (SPST-NO)
(d)	Contact material	N	: Gold plate silver tin oxide
(e)	Enclosure	K	: Plastic sealed type, RTIII
(f)	Construction	S	: 5.0mm (lamp load 1,000W, 230VAC, 25K operations)

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

■ SPECIFICATION

Item			JS - ( ) MN - KS
Contact Data	Configuration		1 form A (SPST-NO)
	Construction		Single A
	Material		$AgSnO_2$ + Gold plated 0.3μm
	Resistance (initial)		Max. 100 mOhm (1A, 6VDC)
	Contact rating		8A, 250VAC / 24VDC
	Max. carrying current		10A
	Max. switching voltage		400VAC / 150 VDC
	Max. switching power		2,000VA / 192W
	Min. switching load *		100 mA, 5 VDC
Life	Mechanical		Min. 20 x 10^6 operations
	Electrical	AC contact rating	Min. 100 x 10^3 operations
		DC contact rating	Min. 100 x 10^3 operations
		Lamp load	1,000W 25 x 10^3 operations at 230VAC
Coil Data	Rated power (at 20 °C)		220 - 290 mW
	Operate power (at 20 °C)		110 - 140 mW
	Operating temperature range		-40 °C to +85 °C (no frost)
Timing Data	Operate (at nominal voltage)		Max. 10ms (without bounce)
	Release (at nominal voltage)		Max. 5ms (no diode, without bounce)
Insulation	Resistance (initial)		Min. 1,000MOhm at 500VDC
	Dielectric strength	Open contacts	1,000VAC (50/60Hz) 1min
		Contacts to coil	5,000VAC (50/60Hz) 1min
	Surge strength	Coil to contacts	10,000V / 1.2 x 50μs standard wave
	Clearance		8 mm
	Creepage		8 mm
	EN61810-1, VDE0435	Voltage	250V
		Pollution degree	3
		Material group	III a
		Category	C / 250V (reference voltage)
Other	Vibration resistance	Misoperation>1us	10 to 55Hz double amplitude 1.65mm
		Endurance>1us	10 to 55Hz double amplitude 3.3mm
	Shock	Misoperation	Min. 100m/s² (11 ± 1ms)
		Endurance	Min. 1,000m/s² (6 ± 1ms)
	Weight		Approximately 8 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

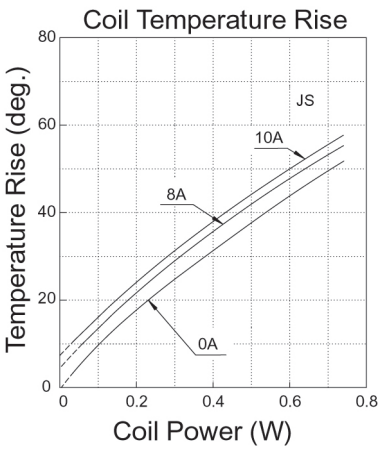
Coil Code	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Must Operate Voltage (VDC) *	Must Release-Voltage (VDC) *	Max. Coil Voltage (VDC)	Rated Power (mW)
5	5	112	3.5	0.5	11.8	225
6	6	160	4.2	0.6	14.1	
9	9	360	6.3	0.9	21.2	
12	12	660	8.5	1.2	28.3	220
18	18	1,455	12.7	1.8	42.4	225
24	24	2,350	16.8	2.4	56.6	245
48	48	8,000	33.4	4.8	105.6	290
60	60	12,500	41.7	6	132	

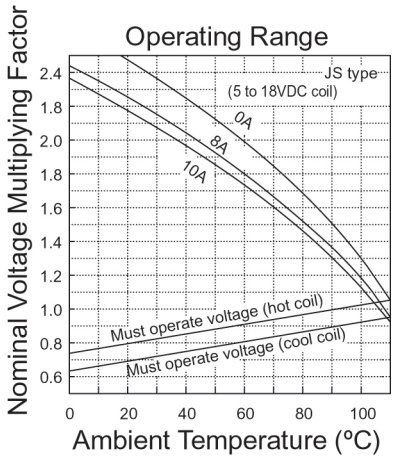
Note: All values in the table are valid for 20°C and zero contact current.
* Specified operate values are valid for pulse wave voltage.

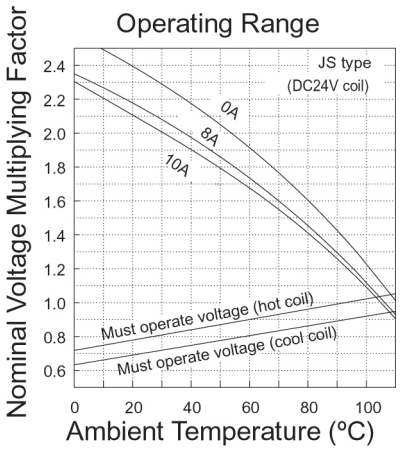
■ SAFETY STANDARDS

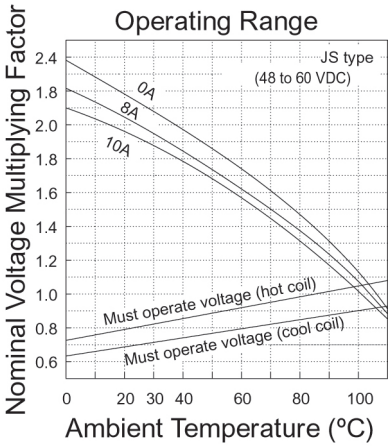
Type	Compliance	Contact rating
UL	UL 508 E 56140	Flammability: UL 94-V0 (plastics) 8 A 24 VDC (resistive) 100k operations 8 A 250 VAC (resistive) 100k operations Pilot duty: A300, R300
CSA	C22.2 No. 14 LR 35579	
VDE	0435, 0660, 40013847 40013847	AC: 15, 100 x 10^3 DC: 13, 100 x 10^3

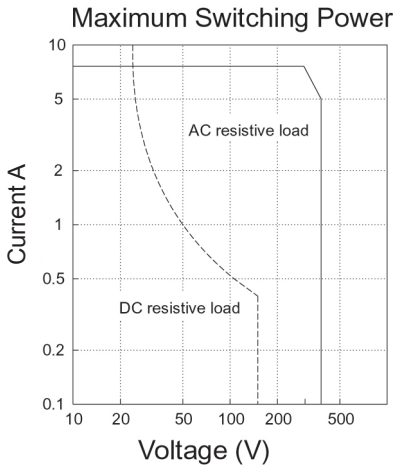
■ CHARACTERISTIC DATA

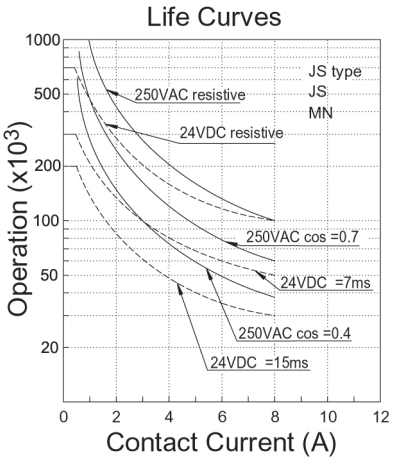




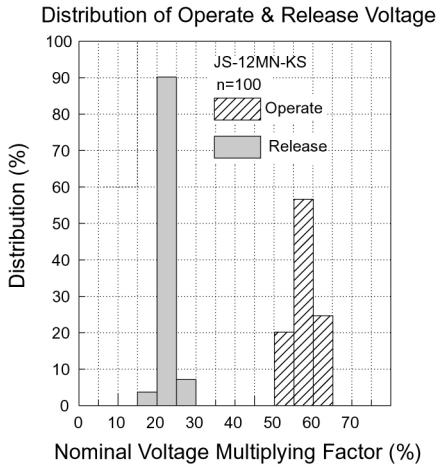


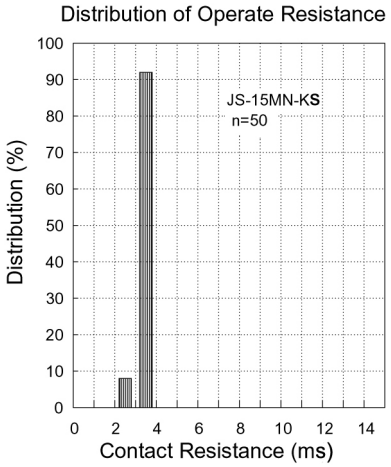






■ REFERENCE DATA

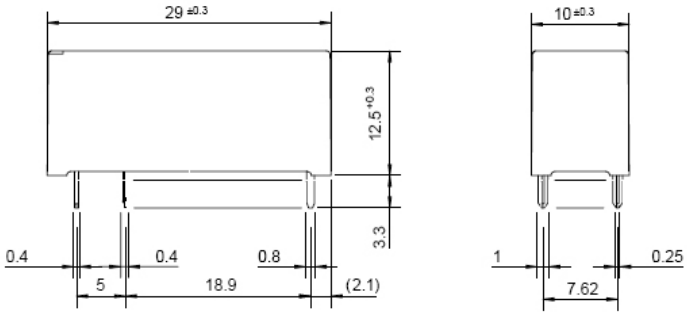




■ DIMENSIONS

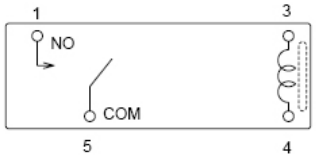
● **Dimensions**

JS-MN-KS type



● **Schematics**

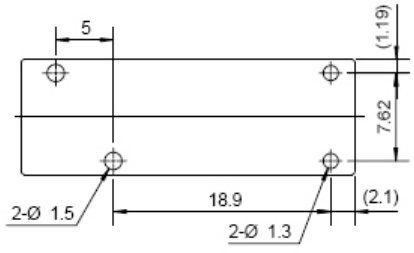
(BOTTOM VIEW)



Unit: mm

● **PC board mounting hole layout**

(BOTTOM VIEW)



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.

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