

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 mm²
 - High sensitivity in small package
 - Operating power - 84 to 110mW
 - 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] $\frac{JS}{(a)}$ - $\frac{12}{(*)}$ $\frac{M}{(b)}$ $\frac{N}{(c)}$ - $\frac{K}{(d)}$ $\frac{S}{(e)}$ $\frac{S}{(f)}$

(a)	Relay type	JS	: JS-Series
(b)	Coil rated voltage	12	: 5.....60 VDC 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
	Material		AgSnO ₂ + Gold plated 0.3μm
	Resistance (initial)		Max. 100 mΩ (1A, 6VDC)
	Contact rating		8A, 250VAC / 24VDC
	Max. carrying current		10A
	Max. switching voltage		400VAC / 300VDC
	Max. switching power		2,000VA / 192W
	Min. switching load *		10 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)		84 - 110 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. 1,000MΩ 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/s ² (11 ± 1ms)
		Endurance	Min. 1,000m/s ² (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 conditions 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	3.1	0.5	11.8	225
6	6	160	3.72	0.6	14.1	
9	9	360	5.58	0.9	21.2	
12	12	660	7.44	1.2	28.3	220
18	18	1,455	11.16	1.8	42.4	225
24	24	2,350	14.88	2.4	56.6	245
48	48	8,000	29.7	4.8	105.6	290
60	60	12,500	37.2	6	132	

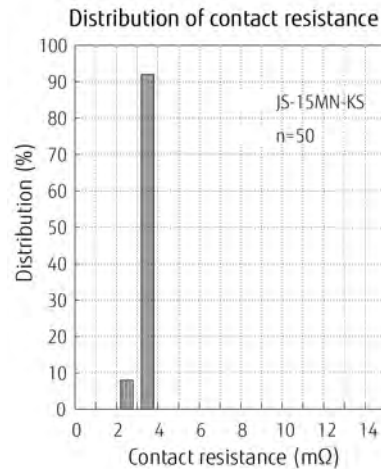
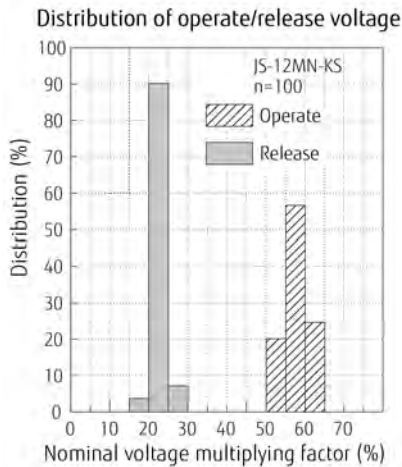
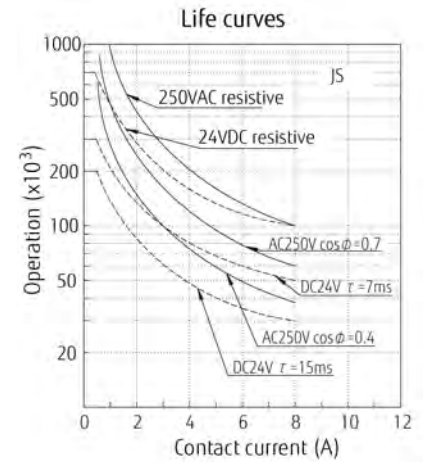
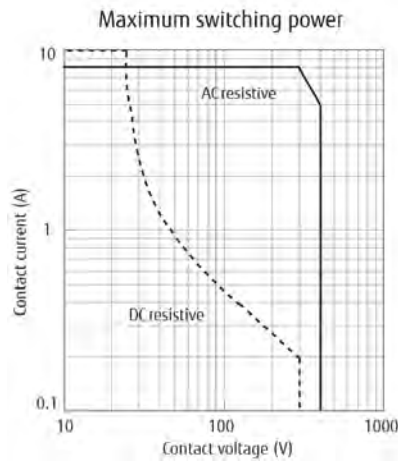
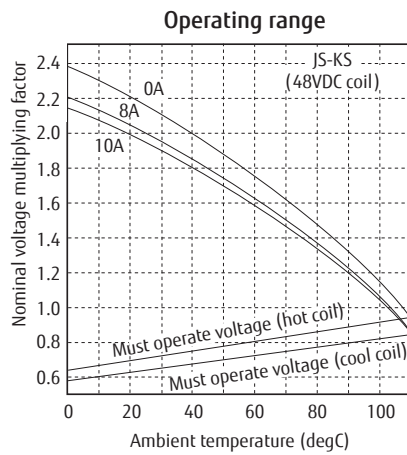
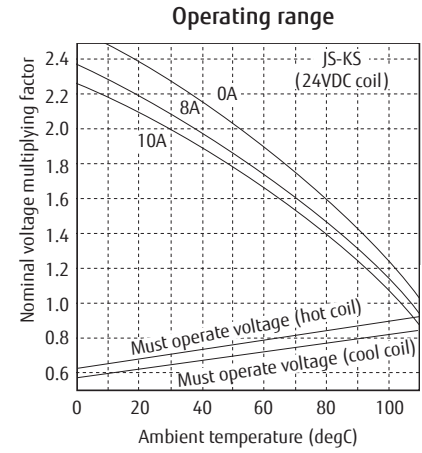
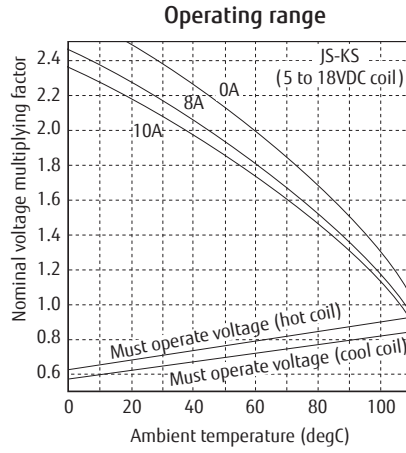
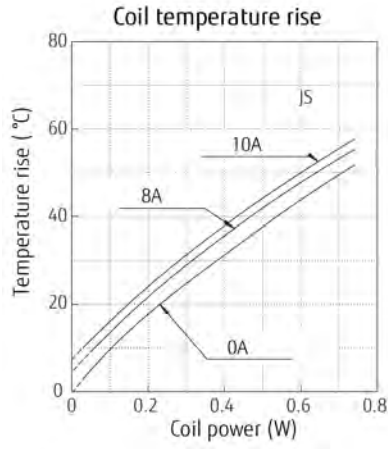
Note: All values in the table are valid for 20°C and zero contact current.

* Specified operate values are valid for pulse wave voltage.

■ SAFETY STANDARDS

Type	Compliance	Contact rating
UL	UL 508	Flammability: UL 94-V0 (plastics)
	E 56140	10A, 30VDC (resistive) 100k operations 10A, 250 VAC (resistive) 100k operations
CSA	C22.2 No. 14 LR 35579	TV-4, 120VAC (only CSA) 1/3hp 125VAC, 1/2hp 250VAC Pilot duty: B300
VDE	IEC61810-1 (VDE 0435) IEC60947-5 (VDE 0660) 40013847	AC 15: 100 x 10 ³ , 85°C DC 13: 100 x 10 ³ , 85°C

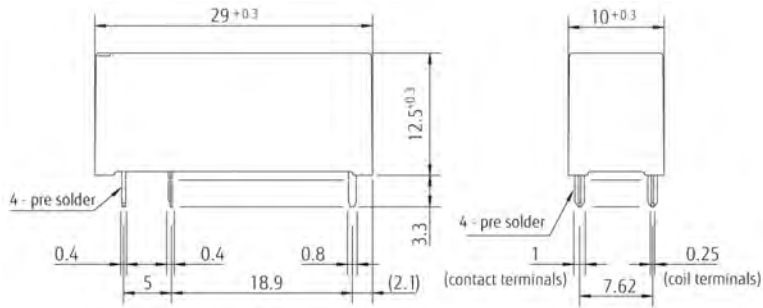
CHARACTERISTIC DATA



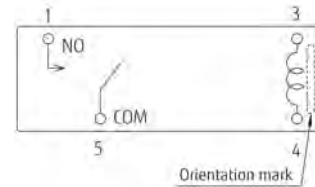
■ DIMENSIONS

JS-MN-KS

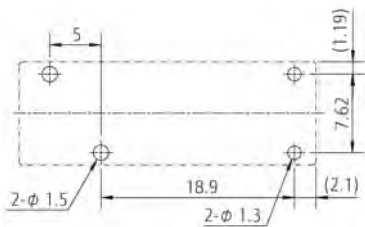
- **Dimensions**



- **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.

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