

POWER RELAY

1 POLE 16 A—SLIM POWER RELAY

FTR-JR Series

RoHS compliant



FEATURES

- 1 Pole 16 A slim relay with #187 Tab terminal
- Nominal power: 530 mW (35% power reduction compared to J Series)
- Cadmium free contacts
- Insulation distance: 9.5mm, Dielectric strength: 5K VAC Surge voltage 10K VAC
- JB: Tab terminal and contact terminal are connected electrically
JC: Tab terminal and contact terminal are not connected electrically
- UL Class B (130 °C), Flame Retardancy Class 0
- SAFETY STANDARDS
UL, CSA, VDE
- RoHS compliant since date code: 04-4R
Please see page 34 for more information



APPLICATIONS

- Microwave oven magnetron, and heater

ORDERING INFORMATION

[Example] FTR-JR J B 012 W - **
 (a) (b) (c) (d) (e) (f)

(a)	Series Name	FTR-JR Series
(b)	Contact Arrangement	J : Tab terminal (#187)
(c)	Coil Type	B : 530 mW (TAB and PCB terminals connected) C : 530mW (TAB and PCB terminals unconnected)
(d)	Coil Nominal Voltage	012 : 12 VDC 018 : 18 VDC 024 : 24 VDC
(e)	Contact Material	W : Silver alloy
(f)	Custom Designation	Special Number

Note: The designation name is stamped on the top of the relay case as follows:
(Example: Designation ordered: FTR-JRJB012W
Stamp: JRJB012W

FTR-JR Series

COIL DATA CHART

MODEL	Nominal Voltage	Coil Resistance ($\pm 10\%$)	Must Operate Voltage	Must Release Voltage	Nominal Power
FTR-JR Series					
FTR-JRJ()012W	12 VDC	270 W	9.0 VDC	0.6 VDC	530 mW
FTR-JRJ()018W	18 VDC	610 W	13.5 VDC	0.9 VDC	530 mW
FTR-JRJ()024W	24 VDC	1,100 W	18.0 VDC	1.2 VDC	530 mW

Note: All values in the table are measured at 20°C.

SPECIFICATIONS

Item	FTR-JR Series		
Contact	Arrangement	1 Form A (SPST-NO)	
	Material	Silver alloy	
	Resistance (initial)	Maximum 100 m ohm (at 1A 6VDC)	
	Rating (resistive)	277VAC 16 A	
	Maximum Carrying Current	20A	
	Maximum Switching Rating	4 VA	
	Maximum Switching Voltage	100 VDC	
	Maximum Switching Current	2 A	
	Maximum Switching Load ^{*1}	5 VDC, 10 mA	
Coil	Nominal Power (at 20° C)	530mW	
	Operate Power (at 20° C)	300mW	
	Operating Temperature	-40° C to +85° C (no frost)	
Time Value	Operate Time (at nominal voltage)	Maximum 15 ms (excluding bounce time)	
	Release Time (at nominal voltage)	Maximum 10 ms (excluding bounce time)	
Life	Mechanical	2 x 10 ⁷ operations minimum	
	Electrical	Contact Rating	10 x 10 ⁶ operations minimum
Other	Vibration Resistance	Misoperation	10-55 Hz (double amplitude of 1.65mm)
		Endurance	10-55 Hz (double amplitude of 2.0mm)
	Shock Resistance	Misoperation	200m/s ² (11±1ms)
		Endurance	1,000m/ s ² (6±1ms)
Weight	Approximately 20g		

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

FTR-JR Series

■ INSULATION

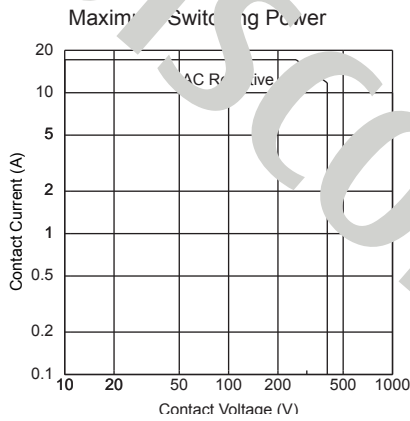
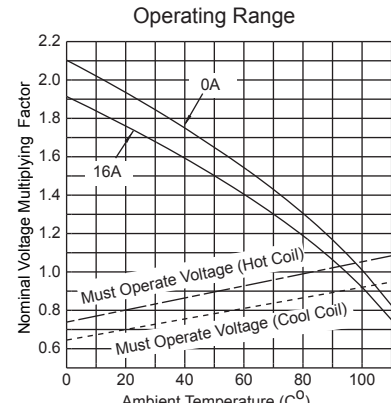
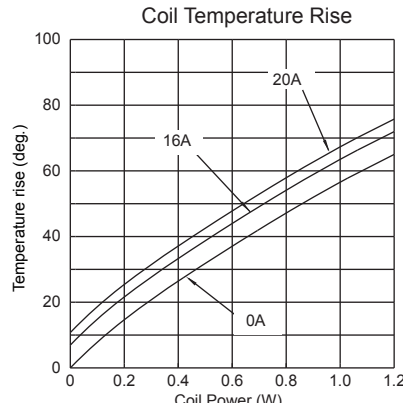
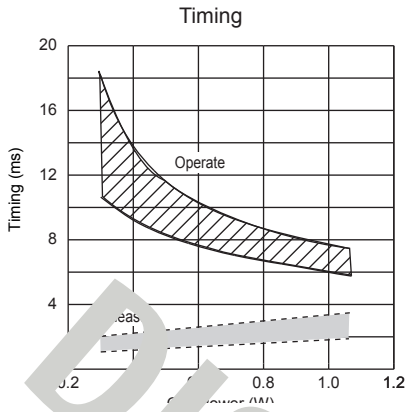
Item	FTR-JR	Note
Resistance (initial)	Minimum 1,000 MΩ	at 500 VDC
Dielectric Strength	open contacts	1,000 VAC (50/60 Hz) 1 min.
	coil and contacts	5,000 VAC (50/60 Hz) 1 min.
Surge Voltage (coil and contact)	10,000 V	1.2 x 50μs standard wave

■ SAFETY STANDARDS

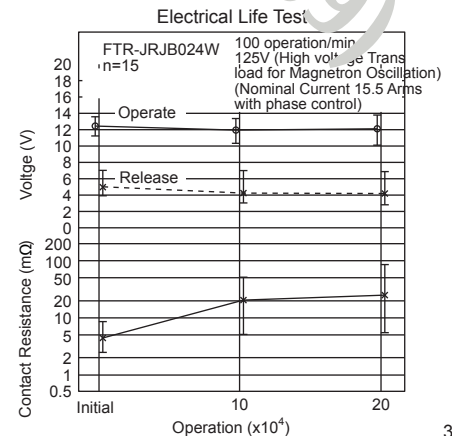
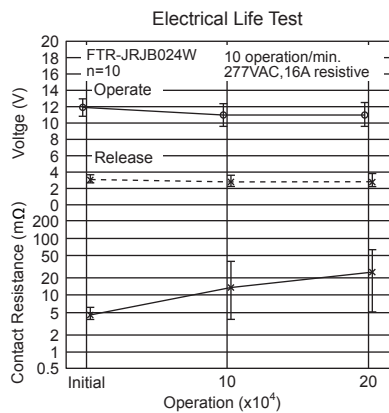
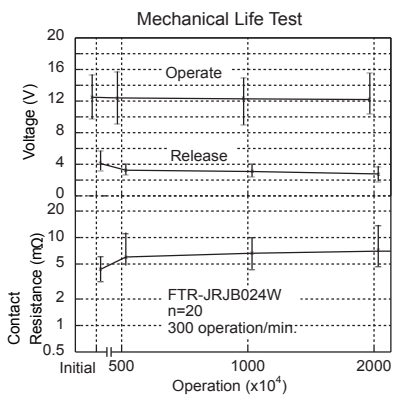
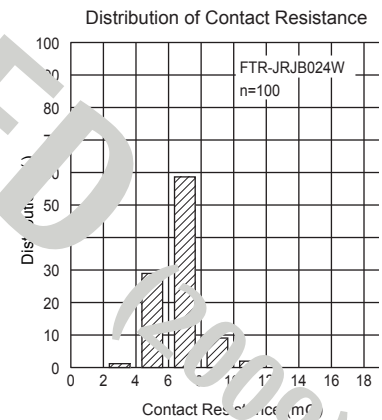
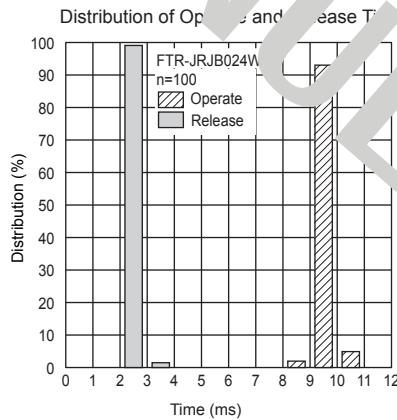
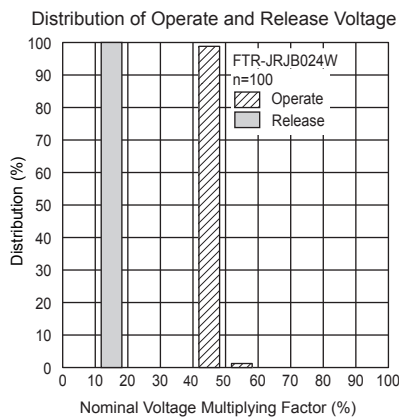
Type	Compliance	Contact rating
UL	UL 508, UL 363	Flammability: UL 94-V0 (plastics) 20A, 125VAC (resistive)
CSA	CSA 2.2, 5.1, LR40004	16A, 277VAC (resistive)
VDE	0435, 063, 07, 0860	

Complies with CQC

CHARACTERISTIC DATA



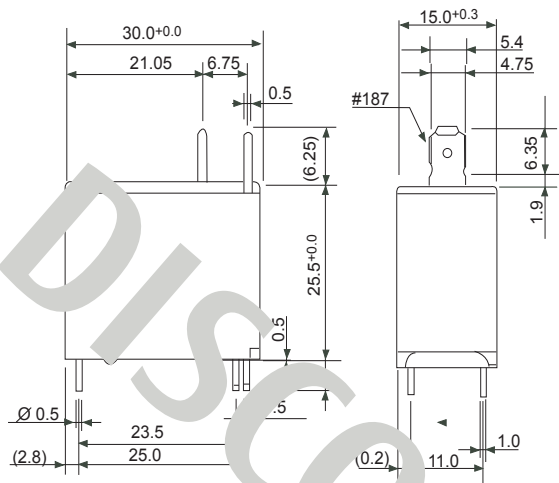
REFERENCE DATA



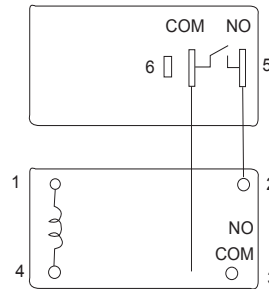
FTR-JR Series

■ DIMENSIONS

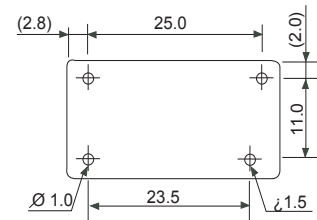
● Dimensions FTR-JB type



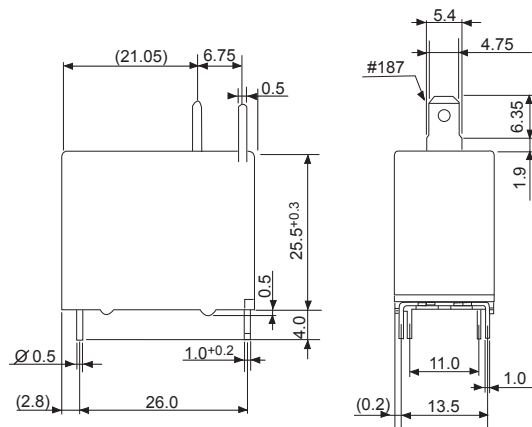
● Schematics (TOP VIEW)



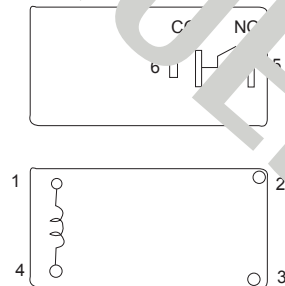
● PC board mounting hole layout (BOTTOM VIEW)



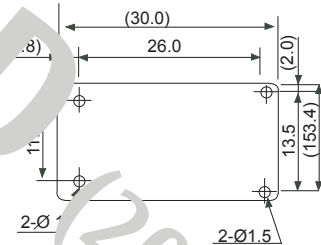
● Dimensions FTR-JC type



● Schematics (TOP VIEW)



● PC board mounting hole layout (BOTTOM VIEW)



Unit: mm

NOTES

DISCONTINUED (2009)