JT102F SUBMINIATURE HIGH POWER RELAY

c UL us
File No:E319069

File No:R 50276259

CQC
File No:CQC13002100586

DVE
File No:40046186

Features

- 25A switching capability
- Ideal for motor switching
- Dust protected type available
- PCB&QC layouts available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions:(30.5 x 16.0 x 23.5)mm
- UL insulation system:Class F

CONTACT DATA

Contact arrangement	1A
Contact resistance[1)]	100mΩ max.(at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating (Res.load)	Resistive:20A 250VAC Motor:2HP 240VAC
Max.switching voltage	250VAC
Max.switching current	Resistive:25A
Max.switching power	6250VA
Mechanical endurance	2×10^6 ops
Electrical endurance	1×10^5ops(20A 250VAC, Resistive load, at 85℃, 1s on 9s off)

Notes: 1)The data shown above are intial values.

CHARACTERISTICS

Insulation resistance		1000MΩ(at 500VDC)
Dielectirc strength	Between coil&contacts	4500VAC 1min
	Between open contacts	1000VAC 1min
Operate time(at nomi.volt.)		20ms max.
Release time(at nomi.volt.)		10ms max.
Temperature rise(at nomi.volt.)		60K max.
Shock resistance	Functional	$196m/s^2$
	Destructive	$980m/s^2$
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient tenperature		-25℃ to 85℃
Termination		JT102F:PCB&QC JT102F-P:PCB
Unit weight		Approx. 23g
Construction		Dust protected

Notes: The data shown above are intial values.

COIL

Coil power	Approx. 900mW

COIL DATA

at 23℃

Nominal Voltage VDC	Pick-up Voltage VDC[1)]	Drop-out Voltage VDC[1)]	Max. Voltage VDC*[1)]	Coil Resistance Ω
5	≤3.5	≥0.5	6.0	27.8 x (1±10%)
12	≤8.4	≥1.2	14.4	160 x (1±10%)
24	≤16.8	≥2.4	28.8	640 x (1±10%)
48	≤33.6	≥4.8	57.6	2560 x (1±10%)

Notes: 1)The data shown above are intial values.
2)*Maximum Voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

UL/CUL	25A 250VAC 20A 250VAC 1HP 120VAC 2HP 240VAC
TUV/VDE	25A 250VAC 55℃ 20A 250VAC 85℃

Notes: 1)All values unspecified are at room temperature.
2)Only typical loads are listed above.Other load specificationgs can be avaliable upon request.

ORDERING INFORMATION

JT102F	T	G	-12VDC	(XXX)

Type	**JT102F-P**:PCB Layouts **JT102F**:PCB&QC Layouts
Contact material	**T**: $AgSnO_2$
Load	**G**: 25A **Nil**: 20A
Coil voltage	5, 12, 24, 48VDC
Special code[2)]	**XXX**: Customer special requirement **Nil**: Standrad

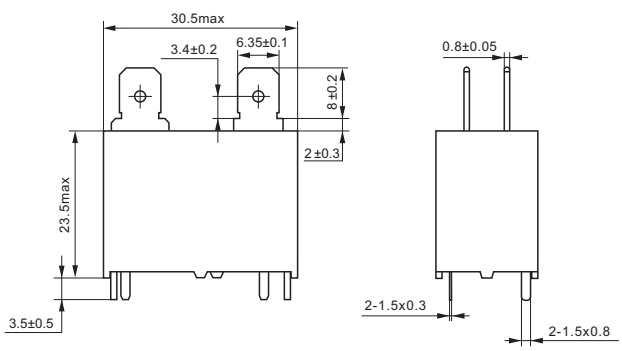
Notes: 1) JT102F is dust protected version which cannot be washed.
2) The customer special requirement express as special code after evaluating by JINTIAN.

OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT

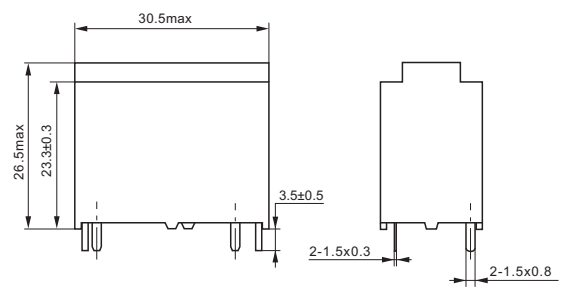
Unit: mm

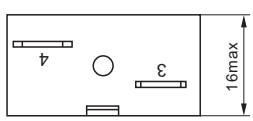
OUTLINE DIMENSIONS

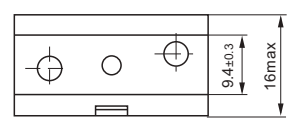
JT102F



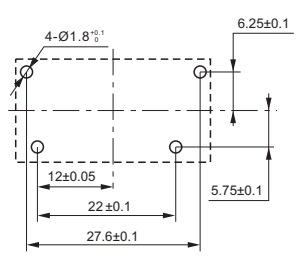
JT102F-P



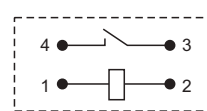




PCB Layout(Bottom view)



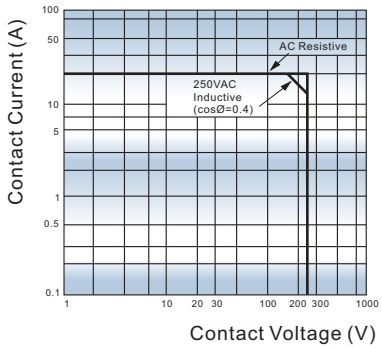
Wiring Diagram



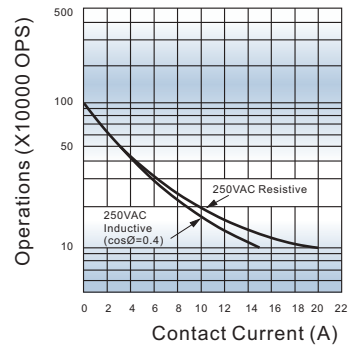
Remark:1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual producet.
2) In case of no tolerance shown in outline dimension:outline dimension ⩽1mm,tolerance should be ±0.2mm;outline dimension＞1mm and⩽5mm,tolerance should be±0.3mm;outline dimension＞5mm,tolerance should be±0.4mm.
3) The tolerance without indicating for PCB layout is always±0.1mm.

CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



Test conditions:
Room temp., 1s on 9s off

Disclaimer
The specification is for reference only. See to “Terminology and Guidelines”for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query,please contact JINTIAN for the technical service. However, it is the user’s responsibility to determine which product should be used only.