JT46F SUBMINIATURE HIGH POWER RELAY

c UL us
File No:E319069

File No:R 50459402

CQC
File No:CQC20002238016

Features

- 5A switching capability
- Within 7.2mm on width, suitable for high density PCB mounting
- 10kV impulse withstand voltage(between coil and contacts)
- Meets VDE 0631 reinforce insulation
- Highly efficient magnetic circuit for high sensiticity:200mW
- Environmental friendly product (ROSH compliant)
- Outline Dimensions:(20.5 x 7.2 x 15.0)mm

CONTACT DATA

Contact arrangement	1A
Contact resistance[1)]	100mΩ max.(at 1A 6VDC)
Contact material	$AgSnO_2$
Contact rating (Res.load)	3A 250VAC/30VDC 5A 250VAC/30VDC
Max.switching voltage	277VAC/30VDC
Max.switching current	5A
Max.switching power	1385VA/150W
Mechanical endurance	1 x 10^6 ops
Electrical endurance	1 x 10^5ops (5A 250VAC,Resistive load, $AgSnO_2$, at room temp., 1s on 1s off)

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

CHARACTERISTICS

Insulation resistance		1000MΩ(at 500VDC)
Dielectirc strength	Between coil&contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage (between coil & movable contacts)		10kV(1.2/50 μs)
Operate time(at nomi.volt.)		10ms max.
Release time(at nomi.volt.)		10ms max.
Shock resistance	Functional	98m/s^2
	Destructive	980m/s^2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient tenperature		-40℃ to105℃
Termination		PCB
Unit weight		Approx. 3g
Construction		Plastic sealed Dust protected

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

COIL

Coil power	Approx. 200mW

COIL DATA

at 23℃

Nominal Voltage VDC	Pick-up Voltage VDC[1)]	Drop-out Voltage VDC[1)]	Max. Voltage VDC*[2)]	Coil Resistance Ω
5	≤3.75	≥0.25	7.50	125 x (1±10%)
6	≤4.50	≥0.30	9.00	180 x (1±10%)
9	≤6.75	≥0.45	13.5	405 x (1±10%)
12	≤9.00	≥0.60	18.0	720 x (1±10%)
18	≤13.5	≥0.90	27.0	1620 x (1±10%)
24	≤18.0	≥1.20	36.0	2880 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

TUV/CQC	3A/5A 277VAC 105°C 3A/5A 250VAC 105°C 3A/5A 125VAC 105°C 3A/5A 30VDC 105°C
UL	3A/5A 277VAC 105°C 3A/5A 250VAC 105°C 3A/5A 125VAC 105°C 3A/5A 30VDC 105°C 1/10HP 277VAC 85°C

Notes: 1) Only typical loads are listed above.
Other load specificationgs can be avaliable upon request.

ORDERING INFORMATION

JT46F	012	-	H	S	1	T	F	(XXX)

Type	
Coil voltage	5,6,9,12,18,24VDC
Contact arrangement	**H**: 1 From A
Construction[1)2)]	**S**: Plastic sealed **Nil**:Dust protected
Termination	**1**: type1
Contact material	**T**: $AgSnO_2$
Insulation standard	**F**: Class F
Special code[3)]	**XXX**: Customer special requirement **Nil**: Standrad

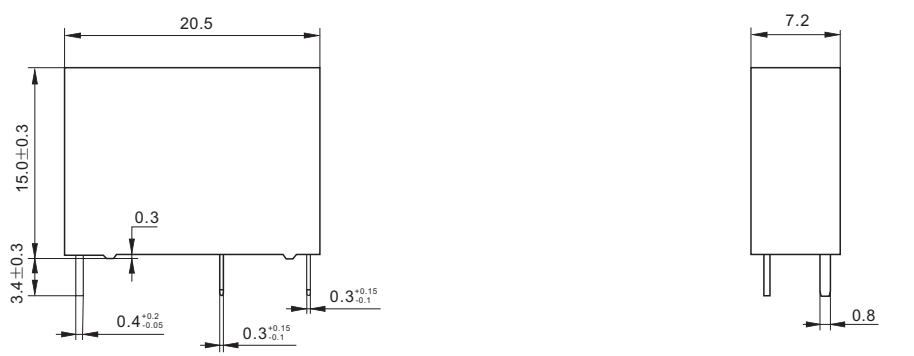
Notes: 1) We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H_2S, SO_2,NO_2,dust,etc.).
2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
3) The customer special requirement express as special code after evaluating by JINTIAN. e.g.(335) stands for product in accordance to IEC 60335-1(GWT).

OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT

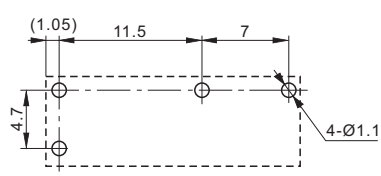
Unit: mm

Outline Dimensions

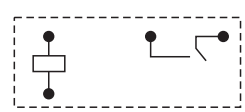
JT46F/□□-HS1TF(XXX)



PCB Layout
(Bottom view)



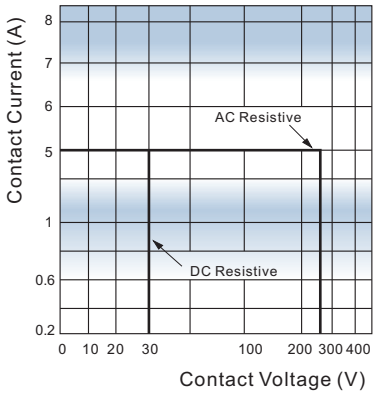
Wiring Diagram
(Bottom view)



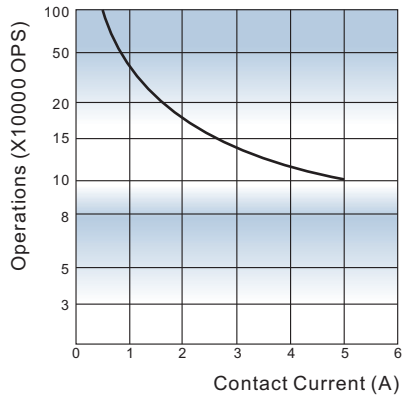
Remark: 1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual producet.
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

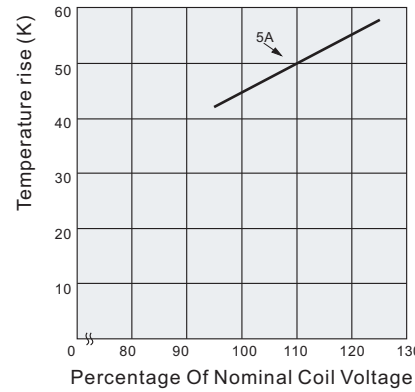


ENDURANCE CURVE



Test conditions:
$AgSnO_2$, at room temp., 1s on 1s off

COIL TEMPERATURE RISE



Test conditions:
5A 105℃
Mounting distance: 5mm

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.