JT115F SUBMINIATURE HIGH POWER RELAY

File No:R 50462205

File No:CQC20002241556

Features

- 16A switching capability
- Low height: 15.6 mm
- 5kV dielectric strength(between coil and contacts)
- Creepage distance: 10mm
- Meeting VDE 0700, 0631 reinforce insulation
- Product in accordance to IEC 60335-1 available
- Multiple contact forms are available
- UL insulation system: Class F

CONTACT DATA

Contact arrangement	1A,1C	2A,2C
Contact resistance[1)]	100mΩ max.(at 1A 6VDC)	
Contact material		$AgSnO_2$
Contact rating (Res.load)	12A/16A 250VAC	8A 250VAC
Max.switching voltage		250VAC
Max.switching current	12A/16A	8A
Max.switching power	3000VA/4000VA	2000VA
Mechanical endurance		1 x 10^6 ops
Electrical endurance	1H3 type:5x10^4ops(16A 250VAC, Resistive load,Room temp.,1s on 9s off) 2H2 type:5x10^4ops(8A 250VAC, Resistive load,Room temp.,1s on 9s off) 1H1 type:5x10^4ops(12A 250VAC, Resistive load,Room temp.,1s on 9s off)	

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

CHARACTERISTICS

Insulation resistance		1000MΩ(at 500VDC)
Dielectirc strength	Between coil&contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
	Between contact sets	2500VAC 1min
Operate time(at nomi.volt.)		15ms max.
Release time(at nomi.volt.)		8ms 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℃ to 105℃
Termination		PCB
Unit weight		Approx. 13.5g
Construction		Plastic sealed, Flux proofed

Notes: 1)The data shown above are intial values.
2)*Index is not in relay length direction.
3)UL insulation system: Class F.

COIL

Coil power	Standard:Approx. 400mW Sensitive:Approx. 250mW

COIL DATA

at 23℃

Standard type

Nominal Voltage VDC	Pick-up Voltage VDC[1)]	Drop-out Voltage VDC[1)]	Max. Voltage VDC*[2)]	Coil Resistance Ω
5	≤3.75	≥0.50	6.5	62 x (1±10%)
6	≤4.50	≥0.60	7.8	90 x (1±10%)
12	≤9.00	≥1.20	15.6	360 x (1±10%)
24	≤18.0	≥2.40	31.2	1440 x (1±10%)

Sensitive type

Nominal Voltage VDC	Pick-up Voltage VDC[1)]	Drop-out Voltage VDC[1)]	Max. Voltage VDC*[2)]	Coil Resistance Ω
5	≤3.75	≥0.50	6.5	100 x (1±10%)
6	≤4.50	≥0.60	7.8	144 x (1±10%)
12	≤9.00	≥1.20	15.6	576 x (1±10%)
24	≤18.0	≥2.40	31.2	2304 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

CQC	3 type: 16A 250VAC 105°C 2 type: 8A 250VAC 105°C 1 type: 12A 250VAC 105°C
TUV	3 type: 16A 250VAC 85°C 1 type: 12A 250VAC 85°C 2 type: 10A 250VAC 105°C 12A 250VAC 105°C 8A 250VAC 85°C

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

JT115F	012	-1H	S	L	1	T	F	X	

Type	
Coil voltage	5, 6, 12, 24VDC
Contact arrangement	**1H**: 1 Form A **1Z**: 1 Form C **2H**: 2 Form A **2Z**: 2 Form C
Construction [1)2)]	**S**:Plastic sealed **Nil**:Flux proofed
Coil type	**L**: Sensitive(0.25W) **Nil**: Standard(0.4W)
Version	**1**: 3.5mm 1 pole 12A **2**: 5.0mm 2 pole 8A/10A/12A **3**: 5.0mm 1 pole 16A
Contact material	**T:** $AgSnO_2$
Insulation standard	**F:** Class F
Dielectirc strength	**Nil**: 1500VAC(Between open contacts)

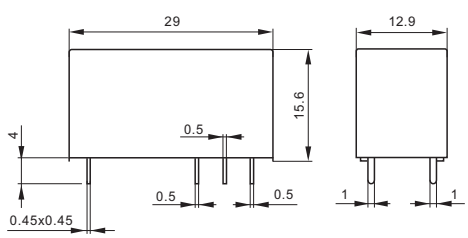
Notes: 1) We recommend flux proofed types for a clean environment(free from contaminations like H_2S,SO_2,NO_2,dust,etc.).
We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H_2S, SO_2,NO_2,dust,etc.).
2) Contact is recommended 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.

OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT

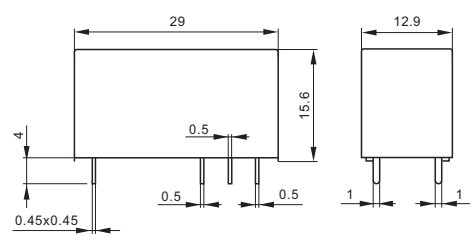
Unit: mm

Outline Dimensions

3.5mm Pinning (JT115F/□□□-□□□□1□□□)



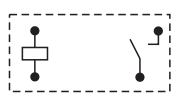
5mm Pinning (JT115F/□□□-□□□□2/3□□□)



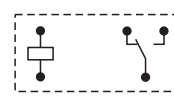
Wiring Diagram

(Bottom view)

3.5/5mm, 1 pole, 12A , JT115F/□□□-1□□□1TF□

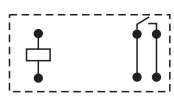


1 Form A

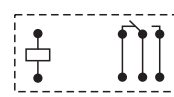


1 Form C

5mm, 1 pole, 16A , JT115F/□□□-1□□□3TF□

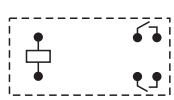


1 Form A

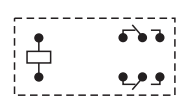


1 Form C

5mm, 2 pole, 8A /10A/12A, JT115F/□□□-2□□□2TF□



2 Form A



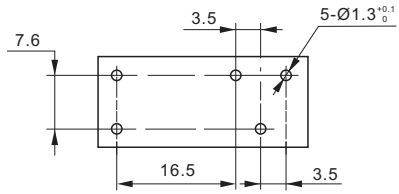
2 Form C

OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT

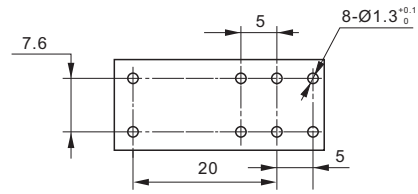
Unit: mm

PCB Layout
(Bottom view)

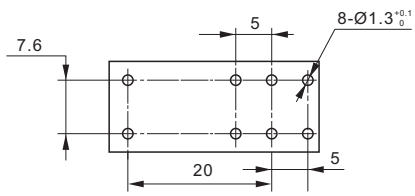
3.5mm 1 pole 12A



5mm 2 pole 8A/10A/12A



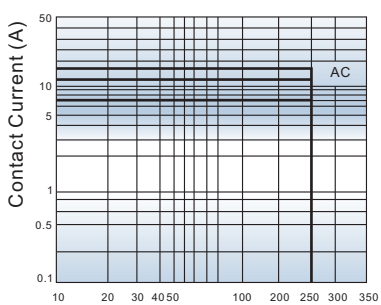
5mm 1 pole 16A



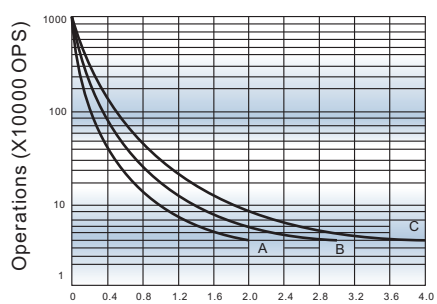
Remark:1) In case of no tolerance shown in outline dimension:outline dimension ≤1mm,tolerance should be ±0.2mm;outline dimension＞1mm and≤5mm,tolerance should be±0.3mm;outline dimension＞5mm,tolerance should be±0.4mm.
2) The tolerance without indicating for PCB layout is always±0.1mm.
3) The width of the gridding is 2.52mm.

CHARACTERISTIC CURVES

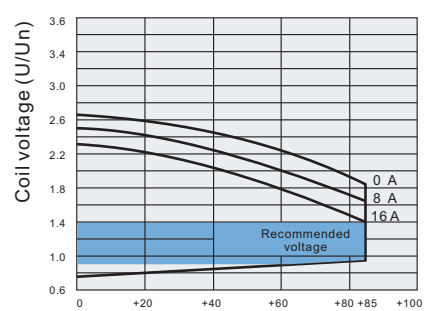
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL OPERATING RANGE (DC) *



Notes:
1. Curve A: 2H2 type
   Curve B: 1H1 type
   Curve C: 1H3 type
2. Test conditions:
   NO, Resistive load, 250VAC,
   Flux proofed, Room temp., 1s on 9s off.

Note:
*The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical life.An energising voltage over the abver range may damage the insulation of relay coil.

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.