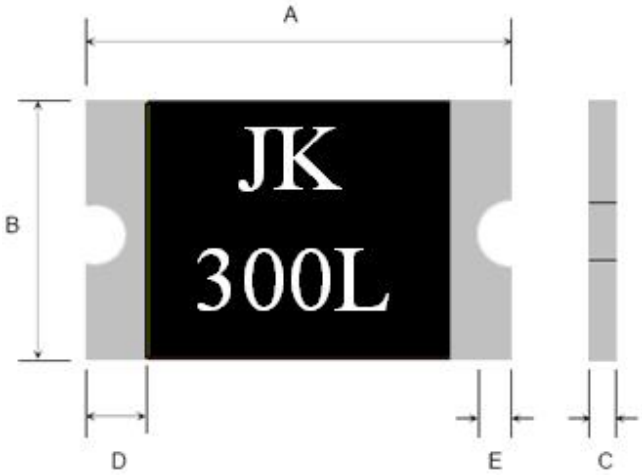
JK-SMD400L-16 PPTC DEVICES

Part Number: Q/JKTD-16-400

金瑞电子材料
Jinrui Electronic material



Terminal pad materials :Tin-Plated Nickle-copper

Terminal pad solderability : Meets EIA specification RS 186-9E and ANSI/J-STD-002 Category 3.

Marking : JK400L=2920(400)

Table1 :DIMENTION(Unit : mm)

Model	Marking	A		B		C		D
		Min.	Max.	Min.	Max.	Min.	Max	Min.
JK-SMD400L	JK400L	6.73	7.98	4.80	5.44	0.50	1.20	0.30

Table2 :PERFORMANCE RATINGS:

Model	V_{max} (Vdc)	I_{max} (A)	I_{hold} @25℃ (A)	I_{trip} @25℃ (A)	P_d Typ (W)	Maximum Time To Trip		Resistance	
						Current (A)	Time (Sec)	Ri_{min} (Ω)	$R1_{max}$ (Ω)
JK-SMD400L	16.0	40	4.0	8.00	1.500	20.00	4.00	0.010	0.040

Table3:Test Conditions and Standards

Item	Test conditions	Standard
Initial Resistance	25℃	0.010~0.040Ω
I_H	25℃，4.00A，30min	No Trip
Ttrip	25℃，20.00A	≤4.0s
Trip endurance	16V，100A，1hr	No arcing or burning

Operating Temperature：-40℃ TO 85℃

Packaging：Bulk ,1500pcs per bag

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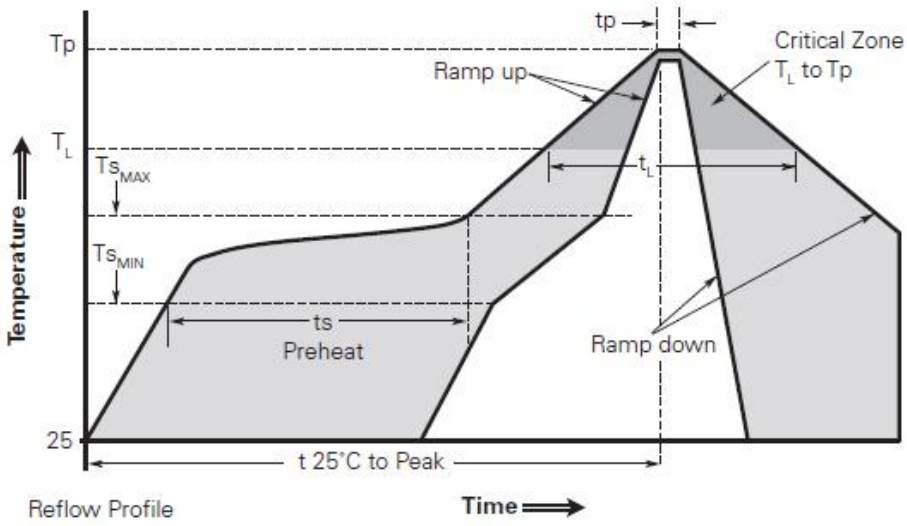
Solder reflow conditions



Profile Feature	Pb-Free Assembly
Average ramp up rate (Ts_{MAX} to Tp)	3°C/second max.
Preheat	
• Temperature min. (Ts_{MIN})	150°C
• Temperature max. (Ts_{MAX})	200°C
• Time (ts_{MIN} to ts_{MAX})	60-120 seconds
Time maintained above:	
• Temperature (T_L)	217°C
• Time (t_L)	60-150 seconds
Peak/Classification temperature (Tp)	260°C
Time within 5°C of actual peak temperature	
Time (tp)	30 seconds max.
Ramp down rate	3°C/second max.
Time 25°C to peak temperature	8 minutes max.

Note: All temperatures refer to topside of the package, measured on the package body surface.

- Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Recommended maximum paste thickness is 0.25mm (0.010inch).
- Devices can be cleaned using standard industry methods and solvents.
- Soldering temprature profile meets RoHs leadfree process.

Notes: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements

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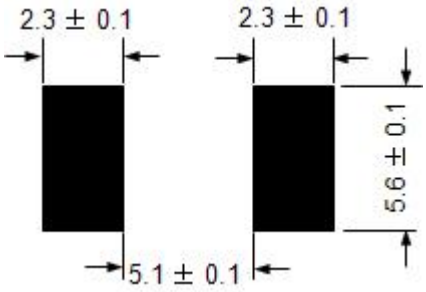

Solder reflow conditions

Storage

The maximum ambient temperature shall not exceed 38℃. Storage temperatures higher than 38℃ could result in the deformation of packaging materials. The maximum relative humidity recommended for storage is 60%. High humidity with high temperature can accelerate the oxidation of the solder plating on the termination and reduce the solderability of the components. Sealed plastic bags with desiccant shall be used to reduce the oxidation of the termination and shall only be opened prior to use. The products shall not be stored in areas where harmful gases containing sulfur or chlorine are present

WARNING

· Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.

· PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.

· Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.

· Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.

· Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.

· Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.PPTC SMD can be cleaned by standard methods.

· Requests that customers comply with our recommended solder pad layouts and recommended reflow profile. Improper board layouts or reflow profilecould negatively impact solderability performance of our devices.