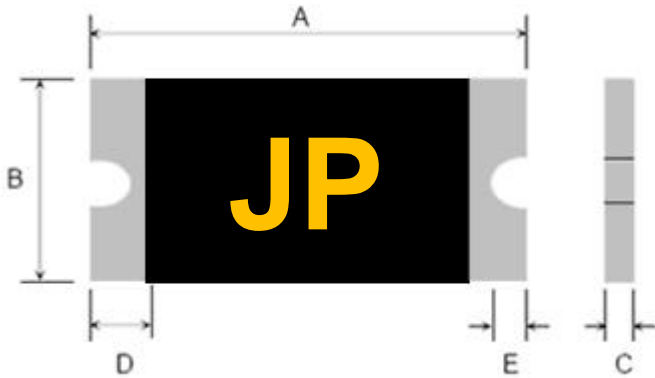


PPTC DEVICE

Part Number: Q/JKTD-6-500


Terminal pad materials: Tin-Plated Nickel-copper

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

Table1 :Dimension(Unit : mm)

Model	Marking	A		B		C		D	E
		Min.	Max.	Min.	Max.	Min.	Max	Min.	Min.
JK-nSMD500L-6	JP	3.0	3.5	1.5	1.8	0.5	1.4	0.15	0.1

Table2 :Performance Ratings

Model	V _{max} (Vdc)	I _{max} (A)	I _{hold} @25°C (A)	I _{trip} @25°C (A)	P _d Typ (W)	Maximum Time To Trip		Resistance	
						Current (A)	Time (Sec)	R _{imin} (Ω)	R _{lmax} (Ω)
JK-nSMD500L-6	6.0	50.0	5.0	10.0	1.0	25.0	2.0	0.002	0.011

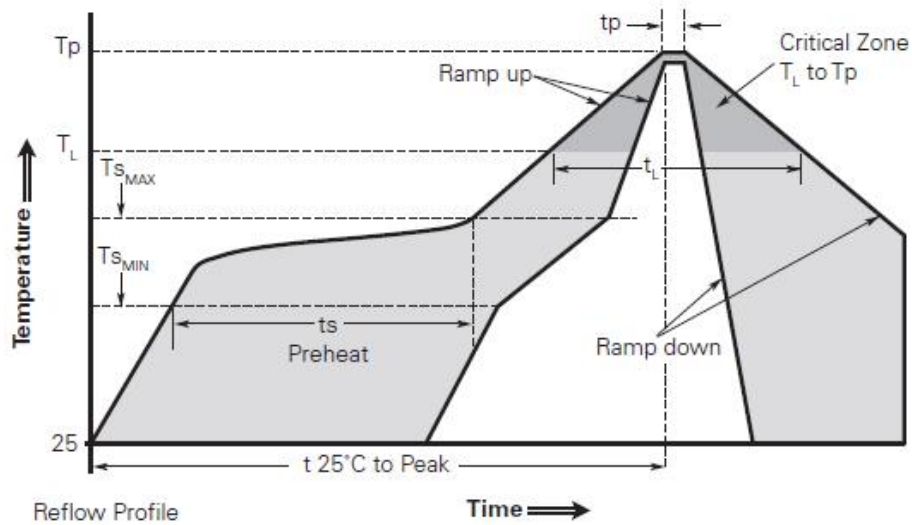
Table3:Test Conditions and Standards

Test Item	Test Conditions	Accept/Reject Criteria
Initial Resistance	In still air, 25°C	0.002-0.011Ω
Holding Current	25°C, 5.0A, 60min	No Trip
Time to Trip	25°C, 25.0A	≤2.0 S
Trip endurance	6V, 50.0A, 60min	No arcing or burning

Table4:Thermal Derating Chart-IH (A)

JK-nSMD500L-6	Maximum ambient operating temperature (°C)								
	-40	-20	0	25	40	50	60	70	85
Hold Current (A)	7.30	6.34	5.66	5.00	4.42	3.85	3.47	3.12	2.38
Trip Current (A)	14.60	12.68	13.32	10.00	8.84	7.70	6.94	6.24	4.76

Packaging: Bulk ,3500pcs per bag

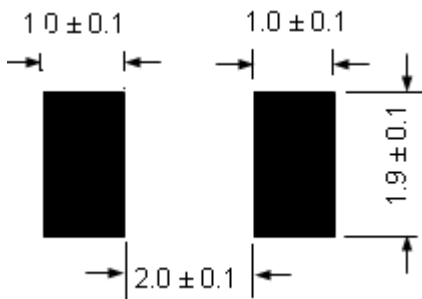
Solder reflow conditions


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 temperature profile meets ROHS lead-free process.

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

Recommended pad layout (mm)


SMD PTC 使用注意事项 Cautions for SMD PTC Use

- 1、请参照规格书规定的最大电压、电流使用产品，超出额定最大值可能导致PTC出现电弧、电阻升高、甚至击穿
Please refer to the maximum voltage and current specified in the specification to use the product. Exceeding the rated maximum value may cause arcing, increased resistance, or even breakdown of the PTC
- 2、规格书所规定的电阻和电气性能均是在领晨指定的测试板，经过一次回流焊接后测试，工艺参数可参考推荐的温度曲线，如果有二次焊接或其他热工序，可能会对性能有衰减
The resistance and electrical properties specified in the specifications are in the test board specified by LT, and are tested after a reflow soldering, and the process parameters can refer to the recommended temperature curve, if there is a secondary welding or other thermal processes, the performance may be attenuated
- 3、PTC为热敏元器件，在不同温度下保持电流有变化，请参照规格书和实际使用下的环境温度进行选型；避免在其周围安装热源元件，避免安装在受压或者影响其热膨胀的环境中
PTC is a thermal component, the current changes at different temperatures, please refer to the specifications and the ambient temperature under actual use for selection, avoid installing heat source components around it, avoid installing it in an environment that is under pressure or affects its thermal expansion
- 4、PTC旨在保护偶尔出现的过流，或者过热故障现象，长时间或者频繁的故障会降低产品的保持电流
PTC is designed to protect the occasional overcurrent or overheating failure phenomenon. Long-term or frequent failures will reduce the holding current of the product
- 5、PTC材料污染了一定量的硅基油或染上侵蚀性溶剂后可能会对元件的性能产生不利影响
Contamination of PTC materials with a certain amount of silica-based oil or exposure to aggressive solvents may adversely affect the performance of the component
- 6、低阻SMD PTC湿敏等级为2a级，储存条件为小于或等于30° C/60% RH，车间寿命为4周，未拆封产品仓库储存时间超过一年请寄回厂家复检后使用
Low resistance SMD PTC moisture sensitivity grade of 2a, storage conditions of less than or equal to 30 °C/ 60% RH, workshop life of 4 weeks, Unopened products stored in the warehouse for more than one year should be sent back to the manufacturer for re-inspection and use