

JK-SMD1210-200 PPTC DEVICES

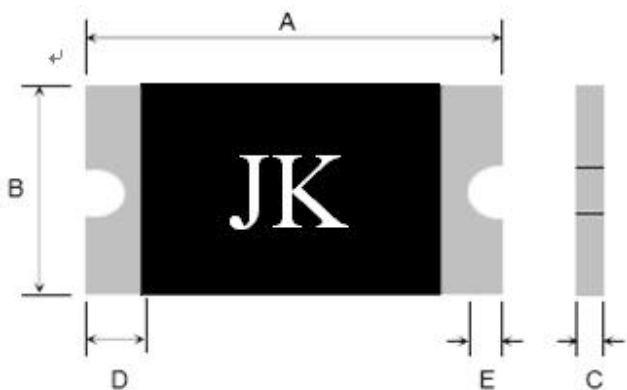
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金瑞电子材料
Jinrui Electronic material



Terminal pad materials :Tin-Plated Nickle-copper

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

Marking : JK=1210(200)

Table1 :DIMENTION(Unit : mm)

| Model | Marking | A | | B | | C | | D |
|----------------|---------|------|------|------|------|------|------|------|
| | | Min. | Max. | Min. | Max. | Min. | Max | Min. |
| JK-SMD1210-200 | JK | 3.00 | 3.43 | 2.35 | 2.80 | 0.60 | 1.80 | 0.25 |

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 _i min (Ω) | R _l max (Ω) |
| JK-SMD1210-200 | 6 | 100 | 2.00 | 4.00 | 1.0 | 8.0 | 1.00 | 0.015 | 0.07 |

Table3:Test Conditons and Standards

| Item | Test Conditon | Standard |
|--------------------|--------------------|----------------------|
| Initial Resistance | 25°C | 0.015~0.07Ω |
| I _H | 25°C, 2.00A, 60min | No Trip |
| T _{trip} | 25°C, 8.0A | ≤1s |
| Trip endurance | 6V, 100A, 60min | No arcing or burning |

Operating Temperature: -40°C TO 85°C

Packaging: Bulk ,4000pcs per bag

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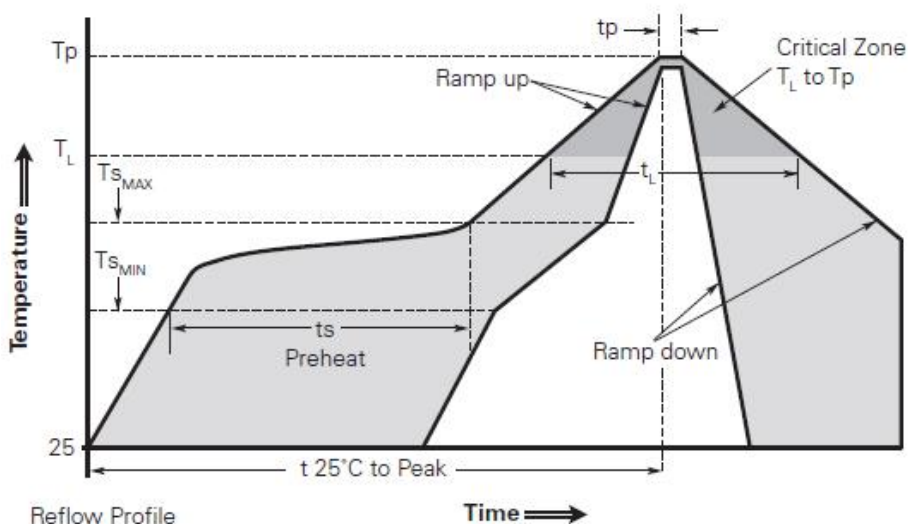
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Solder reflow conditions



| Profile Feature | Pb-Free Assembly |
|---|------------------|
| Average ramp up rate (T_{S_MAX} to T_p) | 3°C/second max. |
| Preheat | |
| • Temperature min. (T_{S_MIN}) | 150°C |
| • Temperature max. (T_{S_MAX}) | 200°C |
| • Time (t_{S_MIN} to t_{S_MAX}) | 60-120 seconds |
| Time maintained above: | |
| • Temperature (T_L) | 217°C |
| • Time (t_L) | 60-150 seconds |
| Peak/Classification temperature (T_p) | 260°C |
| Time within 5°C of actual peak temperature | |
| Time (t_p) | 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 leadfree process.

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

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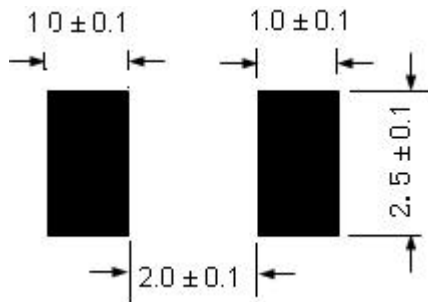
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Recommended pad layout (mm)



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 profile could negatively impact solderability performance of our devices.

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