



SMD200L

Performance Specification

| 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 | | Agency Approval | |
|---------|---------------------------|-------------------------|-----------------------------------|-----------------------------------|-------------------------------|-------------------------|---------------|---------------------------|---------------------------|-----------------|-----|
| | | | | | | Current (A) | Time (Sec) | R _{i_min} (Ω) | R _{1_max} (Ω) | UL | TUV |
| SMD200L | 16 | 100 | 2.00 | 4.00 | 1.5 | 8.0 | 4.5 | 0.020 | 0.120 | | |

I_{hold} = Hold Current. Maximum current device will not trip in 25°C still air.
I_{trip} = Trip Current. Minimum current at which the device will always trip in 25°C still air.
V_{max} = Maximum operating voltage device can withstand without damage at rated current (I_{max}).
I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).
P_d = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.
R_{imin/max} = Minimum/Maximum device resistance prior to tripping at 25°C.
R_{1max} = Maximum device resistance is measured one hour post reflow.
CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

Environmental Specifications

| Test | Conditions | Resistance change |
|--|-----------------------------|-------------------|
| Passive aging | +85°C, 1000 hrs. | ±5% typical |
| Humidity aging | +85°C, 85% R.H. , 168 hours | ±5% typical |
| Thermal shock | +85°C to -40°C, 20 times | ±33% typical |
| Resistance to solvent | MIL-STD-202, Method 215 | No change |
| Vibration | MIL-STD-202, Method 201 | No change |
| Ambient operating conditions : - 40 °C to +85 °C | | |
| Maximum surface temperature of the device in the tripped state is 125 °C | | |

Agency Approvals :

UL pending

Regulation/Standard:



2002/95/EC

EN14582

I_{hold} Versus Temperature

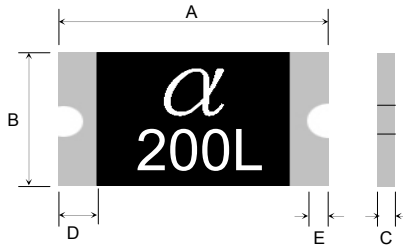
| Model | Maximum ambient operating temperature (T _{mao}) vs. hold current (I _{hold}) | | | | | | | | |
|---------|---|-------|------|------|------|------|------|------|------|
| | -40°C | -20°C | 0°C | 25°C | 40°C | 50°C | 60°C | 70°C | 85°C |
| SMD200L | 3.02 | 2.68 | 2.34 | 2.00 | 1.66 | 1.50 | 1.32 | 1.16 | 0.90 |

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Construction And Dimension (Unit:mm)

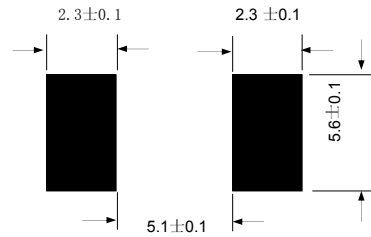
| Model | A | | B | | C | | D |
|---------|------|------|------|------|------|------|------|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
| SMD200L | 6.73 | 7.98 | 4.80 | 5.44 | 0.30 | 0.90 | 0.30 |

Dimensions & Marking



α = Trademark
200 = Hold current

Recommended Pad Layout (mm)



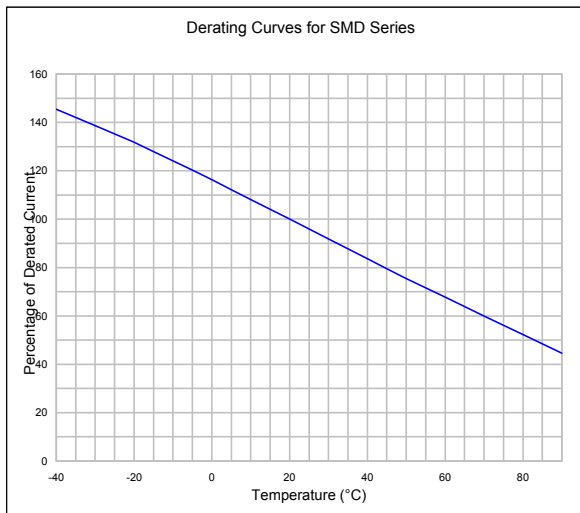
Termination Pad Characteristics

Terminal pad materials : Tin-plated Nickel-Copper
Terminal pad solderability : Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3.

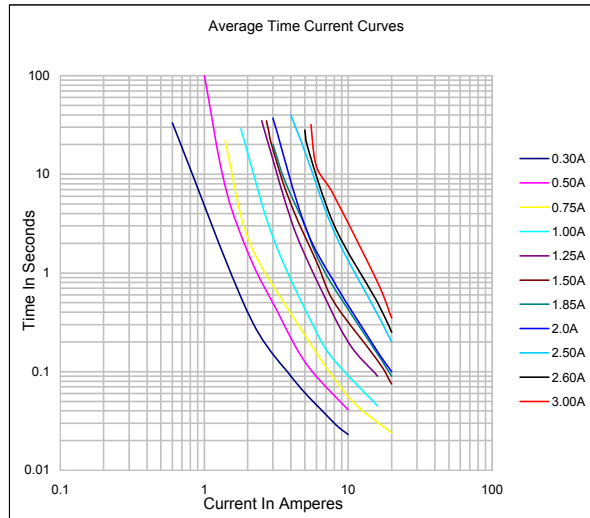
Rework

Use standard industry practices, the removal device must be replaced with a fresh one.

Thermal Derating Curve



Typical Time-To-Trip At 25°C

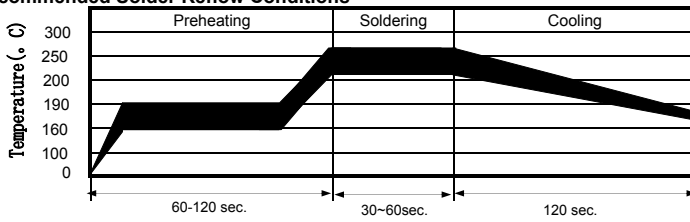


WARNING:

- 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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Recommended Solder Reflow Conditions

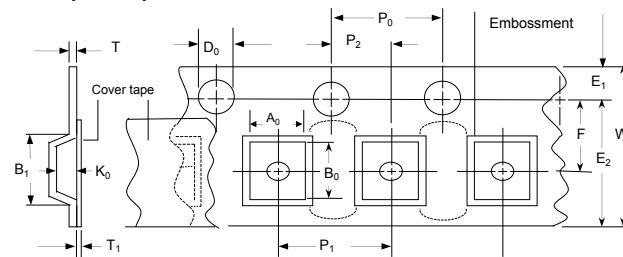


- Recommended reflow methods : IR, vapor phase oven, hot air oven.
 - Devices are not designed to be wave soldered to the bottom side of the board.
 - Recommended maximum paste thickness is 0.25 mm (0.010 inch).
 - Devices can be cleaned using standard method and solvents.
- Note : If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

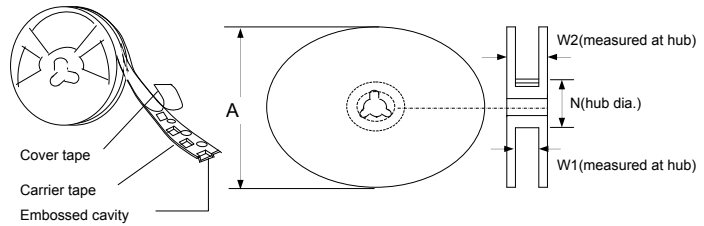
Tape And Reel Specifications (mm)

| Governing Specifications | EIA 481-2 |
|--------------------------|------------------|
| W | 16.0 ± 0.3 |
| P ₀ | 4.0 ± 0.10 |
| P ₁ | 8.0 ± 0.10 |
| P ₂ | 2.0 ± 0.05 |
| A ₀ | 5.70 ± 0.10 |
| B ₀ | 8.00 ± 0.10 |
| B ₁ max. | 12.1 |
| D ₀ | 1.5 + 0.1, -0 |
| F | 7.5 ± 0.05 |
| E ₁ | 1.75 ± 0.10 |
| E ₂ min. | 14.25 |
| Tmax. | 0.6 |
| T ₁ max. | 0.1 |
| K ₀ | 0.80 ± 0.1 |
| Leader min. | 390 |
| Trailer min. | 160 |
| Reel Dimensions | |
| A max. | 178 |
| N min. | 60 |
| W ₁ | 16.4 + 2.0, -0.0 |
| W ₂ max. | 22.4 |

EIA Tape Component Dimensions



EIA Reel Dimensions



Storage And Handling

- Storage conditions : 40°C max, 70% R.H.
- Devices may not meet specified performance if storage conditions are exceeded.

Order Information

| SMD | 200L | Packaging |
|----------------------------|---------|--|
| Product name | Hold | Tape & Reel Quantity 2,000 pcs/reel |
| Size 7555 mm /2920 inch | Current | |
| SMD : surface mount device | 2.00A | |