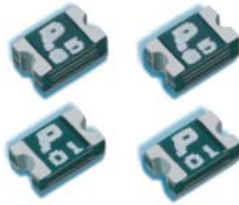


SMD0805



SMD Type, 6 V / 9 V / 15V

Standard

UL 1434 1st Edition
CSA C22.2 No. 0 CSA TIL No. CA-3A

Approvals

cULus Recognition
TÜV

Features

These devices offer wide range in hold currents from 0.1 A to 1.0 A and voltages from 6 V to 15 V. The SMD0805 product line is suitable for high density circuit board applications in computers, cellular phone and general electronics. Suitable for reflow soldering.

Specifications

Packaging

A Blister tape and reel Ø 178 mm

Materials

Terminals: Solder-plated copper
TS: Solder Material: 63/37 SnPb
TF: Solder Material: Sn

Max. Device Surface Temperature in Tripped State

125 °C

Operating / Storage Temperature

-40 °C to +85 °C (consider derating)

Humidity Ageing

+85 °C, 85 % R.H., 1000 hours, ± 5 % typical resistance change

Vibration

MIL-STD-883C, Method 2007.1, Condition A, no change

Thermal Shock

MIL-STD-202F, Method 107G
+85 °C to -40 °C 20 times, -30 % typical resistance change

Solderability

Meets EIA Specification RS186-9E,
ANSI/J-STD-002, Category 3
Reflow only

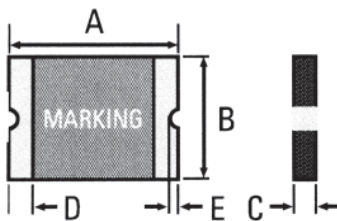
Solvent Resistance

MIL-STD-202, Method 215, no change

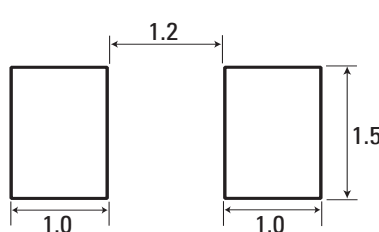
Marking

"P", Part Code

Dimensions (mm)



Solder pad Layout (mm)



| Dimensions (mm) | | | | | | | | | | | |
|------------------|------|------|------|------|------|------|------|------|------|----------------------------|--|
| Model | A | | B | | C | | D | E | | packaging quantity tape | |
| | Min | Max | Min | Max | Min | Max | | Min | Max | | |
| SMD0805P010TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.55 | 1.00 | 0.10 | 0.20 | 0.45 | 4,000 | |
| SMD0805P020TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.55 | 1.00 | 0.10 | 0.20 | 0.45 | 4,000 | |
| SMD0805P035TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.45 | 0.75 | 0.10 | 0.20 | 0.45 | 4,000 | |
| SMD0805P050TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.75 | 1.25 | 0.10 | 0.20 | 0.45 | 3,000 | |
| SMD0805P075TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.75 | 1.25 | 0.20 | 0.15 | 0.45 | 3,000 | |
| SMD0805P100TS/TF | 2.00 | 2.20 | 1.20 | 1.50 | 0.80 | 1.80 | 0.20 | 0.15 | 0.45 | 2,000 | |

| Permissible continuous operating current is ≤ 100 % at ambient temperature of 20 °C (68 °F). | | | | | | | | | | | |
|--|--------------------------|--------------------------|-----------------------------|--------------------------|---------------------------------|----------------------------|-----------------------|-----------------------|------------------------|-----------|-----|
| Model | I _{hold} (A) | I _{Trip} (A) | V _{max. dc} (V) | I _{max.} (A) | max. time to trip (sec. @ A) | P _{d max.} (W) | Resistance | | | Approvals | |
| | | | | | | | R _{min.} (Ω) | R _{typ.} (Ω) | R _{1max.} (Ω) | cULus | TÜV |
| SMD0805P010TS/TF | 0.10 | 0.30 | 15 | 40 | 1.50 @ 0.50 | 0.5 | 1.000 | 3.500 | 6.000 | • | • |
| SMD0805P020TS/TF | 0.20 | 0.50 | 9 | 40 | 0.02 @ 8.00 | 0.5 | 0.650 | 2.000 | 3.500 | • | • |
| SMD0805P035TS/TF | 0.35 | 0.75 | 6 | 40 | 0.10 @ 8.00 | 0.5 | 0.250 | 0.750 | 1.200 | • | • |
| SMD0805P050TS/TF | 0.50 | 1.00 | 6 | 40 | 0.10 @ 8.00 | 0.5 | 0.150 | 0.500 | 0.850 | • | • |
| SMD0805P075TS/TF | 0.75 | 1.50 | 6 | 40 | 0.20 @ 8.00 | 0.6 | 0.090 | 0.260 | 0.350 | p | p |
| SMD0805P100TS/TF | 1.00 | 1.95 | 6 | 40 | 0.30 @ 8.00 | 0.6 | 0.060 | 0.120 | 0.210 | p | p |

Please choose TS for SnPb and TF for Sn plating

NOTE:

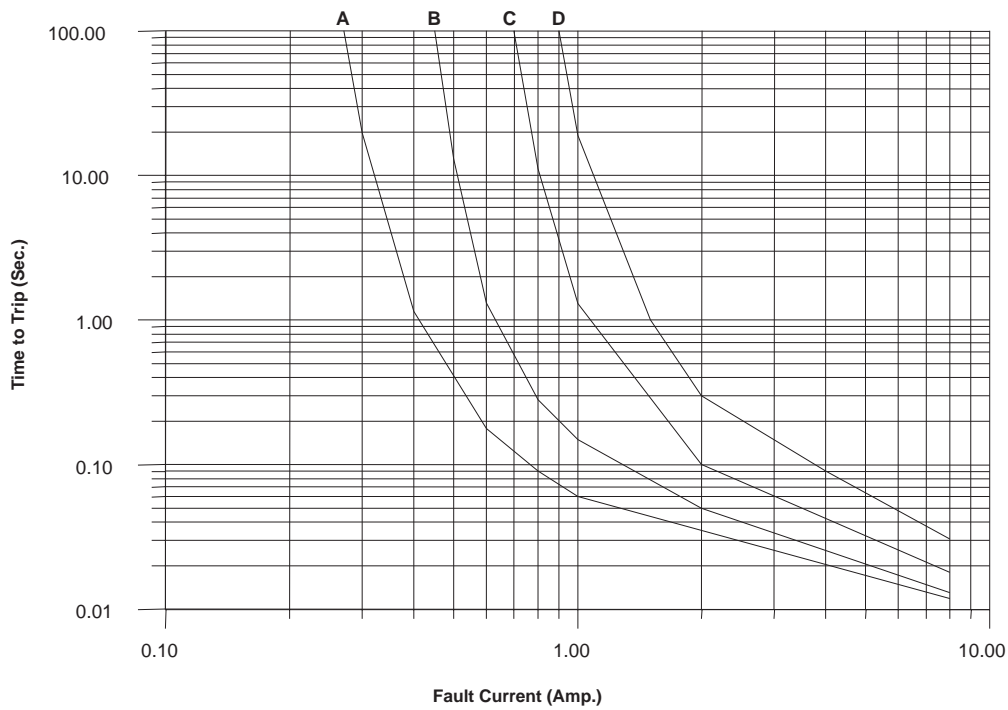
I_{hold} = Hold current: maximum current device will pass without tripping in 20 °C still air.
I_{Trip} = Trip current: minimum current at which the device will trip in 20 °C still air.
V_{max.} = Maximum voltage device can withstand without damage at rated current (I_{max.})
I_{max.} = Maximum fault current device can withstand without damage at rated voltage (V_{max.})

P_d = Power dissipated from device when in the tripped state at 20 °C still air.
R_{min.} = Minimum resistance of device in initial (un-soldered) state.
R_{1max.} = Maximum resistance of device at 20 °C measured one hour after tripping for 20 s.
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame. Specifications are subject to change without notice

Order Information

| Qty. | Order-Number | Model | Packaging |
|------|--------------|-------|-----------|
| | | | |

SMD0805



A: SMD0805P010TS/TF
 B: SMD0805P020TS/TF
 C: SMD0805P035TS/TF
 D: SMD0805P050TS/TF

Thermal Derating Chart

| Model | Ambient Operation Temperature - I_{hold} (A) | | | | | | | | |
|------------------|--|--------|--------|-------|--------|--------|--------|--------|--------|
| | -40 °C | -20 °C | 0 °C | 23 °C | 40 °C | 50 °C | 60 °C | 70 °C | 85 °C |
| SMD0805P010TS/TF | 0.14 | 0.12 | 0.11 | 0.10 | 0.08 | 0.07 | 0.06 | 0.05 | 0.03 |
| SMD0805P020TS/TF | 0.28 | 0.25 | 0.23 | 0.20 | 0.17 | 0.14 | 0.12 | 0.10 | 0.07 |
| SMD0805P035TS/TF | 0.47 | 0.44 | 0.39 | 0.35 | 0.30 | 0.27 | 0.24 | 0.20 | 0.14 |
| SMD0805P050TS/TF | 0.68 | 0.62 | 0.55 | 0.50 | 0.40 | 0.37 | 0.33 | 0.29 | 0.23 |
| SMD0805P075TS/TF | t.b.d. | t.b.d. | t.b.d. | 0.75 | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. |
| SMD0805P100TS/TF | t.b.d. | t.b.d. | t.b.d. | 1.00 | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. |