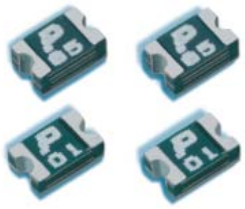
# SMD0805



## 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 — Blistertape 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

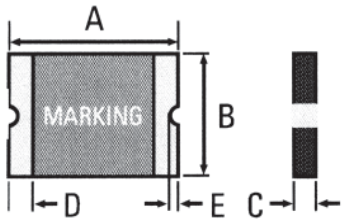
**Solvent Resistance**

MIL-STD-202, Method 215, no change

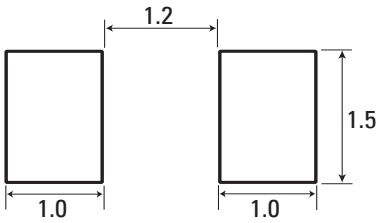
**Marking**

"P", Part Code

Dimensions (mm)




Solder pad Layout (mm)




### Dimensions (mm)

| Model | A Min | A Max | B Min | B Max | C Min | C Max | D Min | E Min | E Max | packaging quantity tape |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 $R_{min.}$ (Ω) | $R_{typ.}$ (Ω) | $R_{I\ max.}$ (Ω) | Approvals cURus | 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 |
|---|---|---|---|
| | | | |



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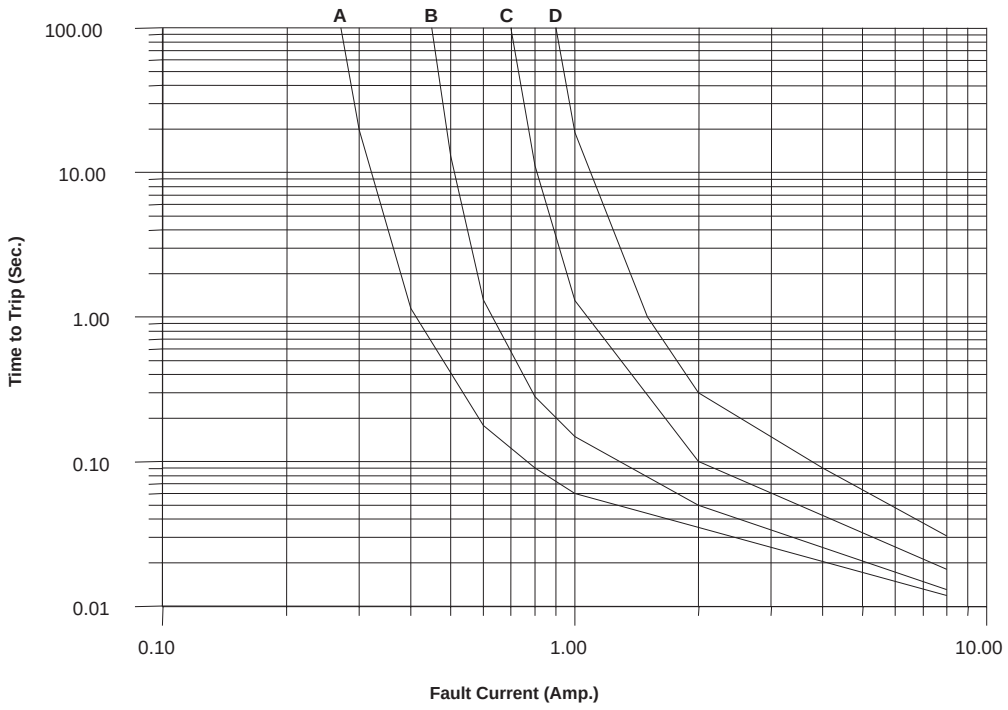


A: SMD0805P010TS/TF
B: SMD0805P020TS/TF
C: SMD0805P035TS/TF
D: SMD0805P050TS/TF

## 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. |