



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

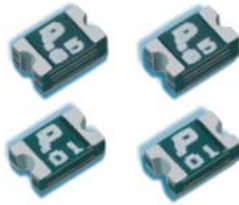
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SMD0805



## SMD Type, 6 V / 9 V / 15V

### Standard

UL 1434 1<sup>st</sup> 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

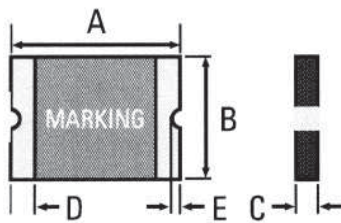
### Solvent Resistance

MIL-STD-202, Method 215, no change

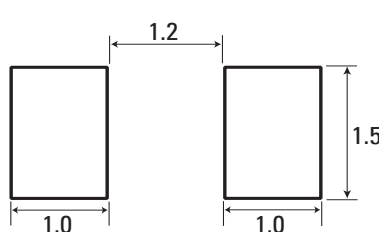
### Marking

"P", Part Code

Dimensions (mm)



Solder pad Layout (mm)



| Dimensions (mm)  |      |      |      |      |      |      |      |      |      |                            |  |
|------------------|------|------|------|------|------|------|------|------|------|----------------------------|--|
| Model            | A    |      | B    |      | C    |      | D    | E    |      | packaging quantity<br>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 <sub>hold</sub><br>(A) | I <sub>Trip</sub><br>(A) | V <sub>max. dc</sub><br>(V) | I <sub>max.</sub><br>(A) | max. time to trip<br>(sec. @ A) | P <sub>d max.</sub><br>(W) | Resistance            |                       |                        | Approvals |     |
|  |                          |                          |                             |                          |                                 |                            | R <sub>min.</sub> (Ω) | R <sub>typ.</sub> (Ω) | R <sub>1max.</sub> (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<sub>hold</sub> = Hold current: maximum current device will pass without tripping in 20 °C still air.  
I<sub>Trip</sub> = Trip current: minimum current at which the device will trip in 20 °C still air.  
V<sub>max.</sub> = Maximum voltage device can withstand without damage at rated current (I<sub>max.</sub>)  
I<sub>max.</sub> = Maximum fault current device can withstand without damage at rated voltage (V<sub>max.</sub>)

P<sub>d</sub> = Power dissipated from device when in the tripped state at 20 °C still air.

R<sub>min.</sub> = Minimum resistance of device in initial (un-soldered) state.

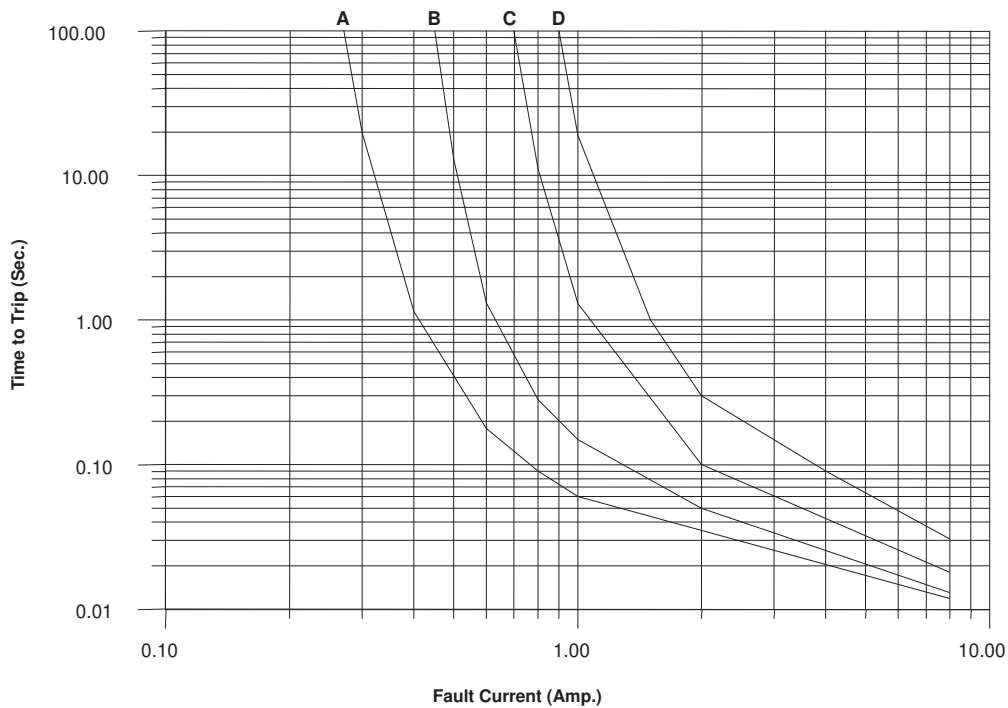
R<sub>1max.</sub> = Maximum resistance of device at 20 °C measured one hour after tripping for 20 s.

**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-<br>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. |