

SMD2016



SMD Type, 6 V - 60 V

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

Approvals
cULus Recognition
TÜV

Features

These devices offer a wide range of hold currents from 0.3 A to 2.0 A and voltages from 6 V to 60 V. The SMD2016 product line is suitable for high density circuit board applications in computers, telecommunications and general electronics. Suitable for reflow soldering.

Specifications

Packaging
A Blister tape and reel Ø 178 mm

Materials
Terminals: TF: Lead free plating

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

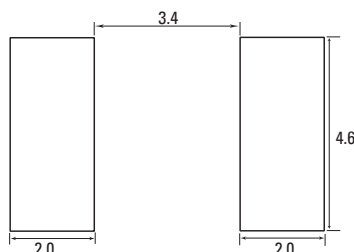
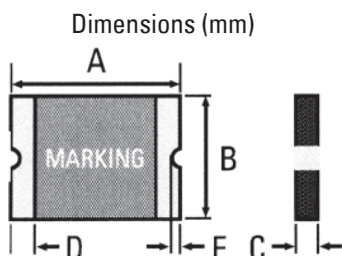
Thermal Shock
MIL-STD-202F, Method 107G
+85 °C to -40 °C 20 times, -30 % typical resistance change

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

Solder pad Layout (mm)



| Dimensions (mm) | | | | | | | | | | |
|------------------|------|------|------|------|------|------|------|------|------|----------------------------|
| Model | A | | B | | C | | D | E | | packaging quantity tape |
| | Min | Max | Min | Max | Min | Max | | Min | Min | |
| SMD2016P030TF | 4.72 | 5.44 | 3.70 | 4.43 | 0.75 | 1.25 | 0.30 | 0.25 | 0.65 | 1,500 |
| SMD2016P050TF | 4.72 | 5.44 | 3.70 | 4.43 | 1.20 | 2.00 | 0.30 | 0.25 | 0.65 | 1,500 |
| SMD2016P100TF | 4.72 | 5.44 | 3.70 | 4.43 | 0.50 | 0.75 | 0.30 | 0.25 | 0.65 | 2,000 |
| SMD2016P100TF/33 | 4.72 | 5.44 | 3.70 | 4.43 | 0.75 | 1.25 | 0.30 | 0.25 | 0.65 | 1,500 |
| SMD2016P150TF | 4.72 | 5.44 | 3.70 | 4.43 | 0.75 | 1.55 | 0.30 | 0.25 | 0.65 | 1,500 |
| SMD2016P200TF | 4.72 | 5.44 | 3.70 | 4.43 | 0.50 | 0.75 | 0.30 | 0.25 | 0.65 | 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 (s @ A) | P _{d max.} (W) | Resistance | | | Approvals | |
| | | | | | | | R _{min.} (Ω) | R _{typ.} (Ω) | R _{I max.} (Ω) | cURus | TÜV |
| SMD2016P030TF | 0.30 | 0.60 | 60 | 20 | 3.00 @ 1.50 | 1.4 | 0.500 | 1.400 | 2.300 | • | • |
| SMD2016P050TF | 0.55 | 1.10 | 60 | 20 | 5.00 @ 2.50 | 1.4 | 0.200 | 0.700 | 1.000 | • | • |
| SMD2016P100TF | 1.10 | 2.20 | 15 | 40 | 0.50 @ 8.00 | 1.4 | 0.100 | 0.250 | 0.400 | • | • |
| SMD2016P100TF/33 | 1.10 | 2.20 | 33 | 40 | 0.50 @ 8.00 | 1.4 | 0.100 | 0.250 | 0.400 | • | • |
| SMD2016P150TF | 1.50 | 3.00 | 15 | 40 | 1.00 @ 8.00 | 1.4 | 0.070 | 0.130 | 0.180 | • | • |
| SMD2016P200TF | 2.00 | 4.20 | 6 | 40 | 3.00 @ 8.00 | 1.4 | 0.048 | 0.070 | 0.100 | • | • |

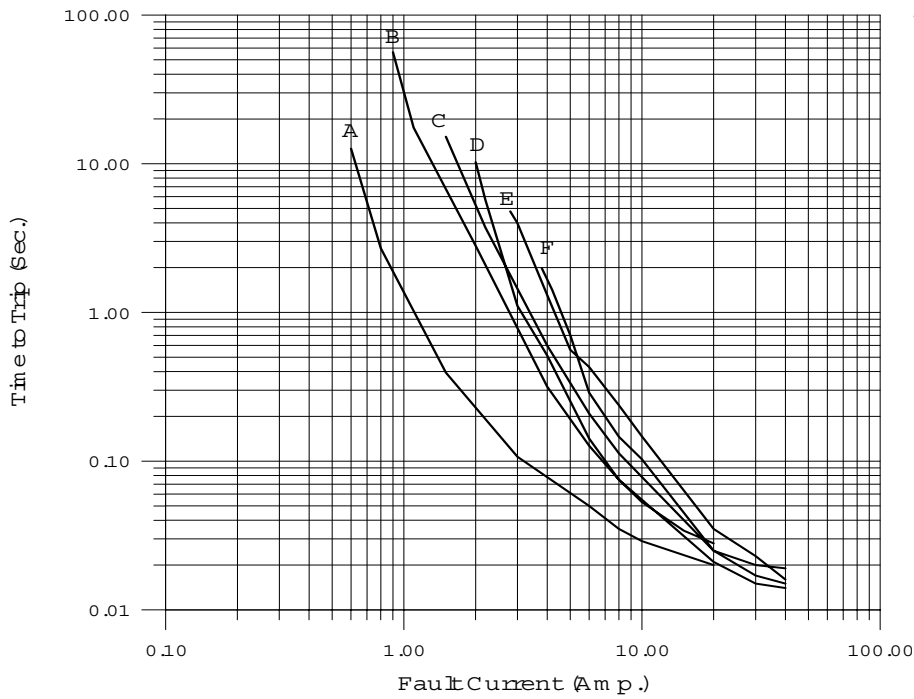
NOTE:
 I_{hold} = Hold current: maximum current device will pass without tripping in 20 °C still air.
 I_{Trip} = Trip current: minimum current at which the device will trip in 20 °C still air.
 V_{max.} = Maximum voltage device can withstand without damage at rated current (I_{max.})
 I_{max.} = Maximum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

SMD2016



- A: SMD2016P030TF
- B: SMD2016P050TF
- C: SMD2016P100TF
- D: SMD2016P100TF/33
- E: SMD2016P150TF
- F: SMD2016P200TF

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 |
| SMD2016P030TF | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.23 | 0.20 | 0.18 | 0.14 |
| SMD2016P050TF | 0.93 | 0.80 | 0.65 | 0.50 | 0.38 | 0.32 | 0.25 | 0.19 | 0.09 |
| SMD2016P100TF | 1.66 | 1.47 | 1.29 | 1.10 | 0.91 | 0.83 | 0.73 | 0.64 | 0.50 |
| SMD2016P100TF/33 | 1.66 | 1.47 | 1.29 | 1.10 | 0.91 | 0.83 | 0.73 | 0.64 | 0.50 |
| SMD2016P150TF | 2.26 | 2.00 | 1.76 | 1.50 | 1.24 | 1.13 | 1.00 | 0.87 | 0.68 |
| SMD2016P200TF | 2.80 | 2.50 | 2.19 | 2.00 | 1.84 | 1.74 | 1.50 | 1.34 | 1.14 |