

## SMD2920



## SMD Type, 6 V - 60 V

## 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 a wide range of hold currents from 0.3 A to 3.0 A and voltages from 6 V to 60 V. The SMD2920 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: TS: Solder-plated copper  
TF: Lead free plating on request

**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

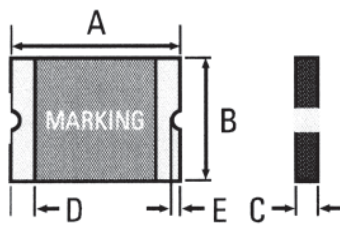
## Solvent Resistance

MIL-STD-202, Method 215, no change

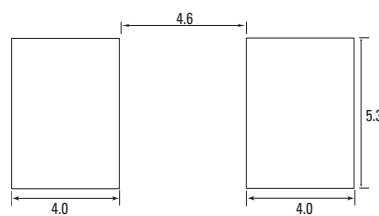
## Marking

"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  | Min  | Max |                            |
| SMD2920P030TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P050TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P075TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P075TS/TF/60 | 6.73 | 7.98 | 4.80 | 5.44 | 1.20 | 2.00 | 0.30 | 0.25 | 2.00 |     | t.b.d.                     |
| SMD2920P100TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.55 | 1.00 | 0.30 | 0.25 | 2.00 |     | 2,000                      |
| SMD2920P125TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.55 | 1.00 | 0.30 | 0.25 | 2.00 |     | 2,000                      |
| SMD2920P150TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P185TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P200TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P200TS/TF/24 | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P250TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P260TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.55 | 1.00 | 0.30 | 0.25 | 2.00 |     | 2,000                      |
| SMD2920P300TS/TF    | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |
| SMD2920P300TS/TF/15 | 6.73 | 7.98 | 4.80 | 5.44 | 0.75 | 1.25 | 0.30 | 0.25 | 2.00 |     | 1,500                      |

Permissible continuous operating current is ≤ 100 % at ambient temperature of 20 °C (68 °F).

| Model<br>(A)        | 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>(s @ A) | P <sub>d max</sub><br>(W) | Resistance<br>R <sub>min</sub> ( ) | R <sub>typ</sub> ( ) | R <sub>max</sub> ( ) | Approvals<br>cULus | TÜV |
|---------------------|--------------------------|--------------------------|-----------------------------|-------------------------|------------------------------|---------------------------|------------------------------------|----------------------|----------------------|--------------------|-----|
| SMD2920P030TS/TF    | 0.30                     | 0.60                     | 60                          | 10                      | 3.00 @ 1.50                  | 1.5                       | 1.200                              | 3.000                | 4.800                | •                  | •   |
| SMD2920P050TS/TF    | 0.50                     | 1.00                     | 60                          | 10                      | 4.00 @ 2.50                  | 1.5                       | 0.350                              | 0.870                | 1.400                | •                  | •   |
| SMD2920P075TS/TF    | 0.75                     | 1.50                     | 30                          | 40                      | 0.30 @ 8.00                  | 1.5                       | 0.350                              | 0.670                | 1.000                | •                  | •   |
| SMD2920P075TS/TF/60 | 0.75                     | 1.50                     | 60                          | 10                      | 0.30 @ 8.00                  | 1.5                       | 0.300                              | t.b.d.               | 0.950                | p                  | p   |
| SMD2920P100TS/TF    | 1.10                     | 2.20                     | 33                          | 40                      | 0.50 @ 8.00                  | 1.5                       | 0.120                              | 0.270                | 0.410                | •                  | •   |
| SMD2920P125TS/TF    | 1.25                     | 2.50                     | 15                          | 40                      | 2.00 @ 8.00                  | 1.5                       | 0.070                              | 0.160                | 0.250                | •                  | •   |
| SMD2920P150TS/TF    | 1.50                     | 3.00                     | 33                          | 40                      | 2.00 @ 8.00                  | 1.5                       | 0.080                              | 0.150                | 0.230                | •                  | •   |
| SMD2920P185TS/TF    | 1.85                     | 3.70                     | 33                          | 40                      | 2.50 @ 8.00                  | 1.5                       | 0.065                              | 0.110                | 0.150                | •                  | •   |
| SMD2920P200TS/TF    | 2.00                     | 4.00                     | 15                          | 40                      | 5.00 @ 8.00                  | 1.5                       | 0.050                              | 0.090                | 0.125                | •                  | •   |
| SMD2920P200TS/TF/24 | 2.00                     | 4.00                     | 24                          | 40                      | 5.00 @ 8.00                  | 1.5                       | 0.050                              | 0.090                | 0.125                | •                  | •   |
| SMD2920P250TS/TF    | 2.50                     | 5.00                     | 15                          | 40                      | 10.00 @ 8.00                 | 1.5                       | 0.035                              | 0.060                | 0.085                | •                  | •   |
| SMD2920P260TS/TF    | 2.60                     | 5.20                     | 6                           | 40                      | 10.00 @ 8.00                 | 1.5                       | 0.025                              | 0.050                | 0.075                | •                  | •   |
| SMD2920P300TS/TF    | 3.00                     | 6.00                     | 6                           | 40                      | 20.00 @ 8.00                 | 1.5                       | 0.015                              | 0.033                | 0.048                | •                  | •   |
| SMD2920P300TS/TF/15 | 3.00                     | 6.00                     | 15                          | 40                      | 20.00 @ 8.00                 | 1.5                       | 0.015                              | 0.033                | 0.048                | •                  | •   |

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>max</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.

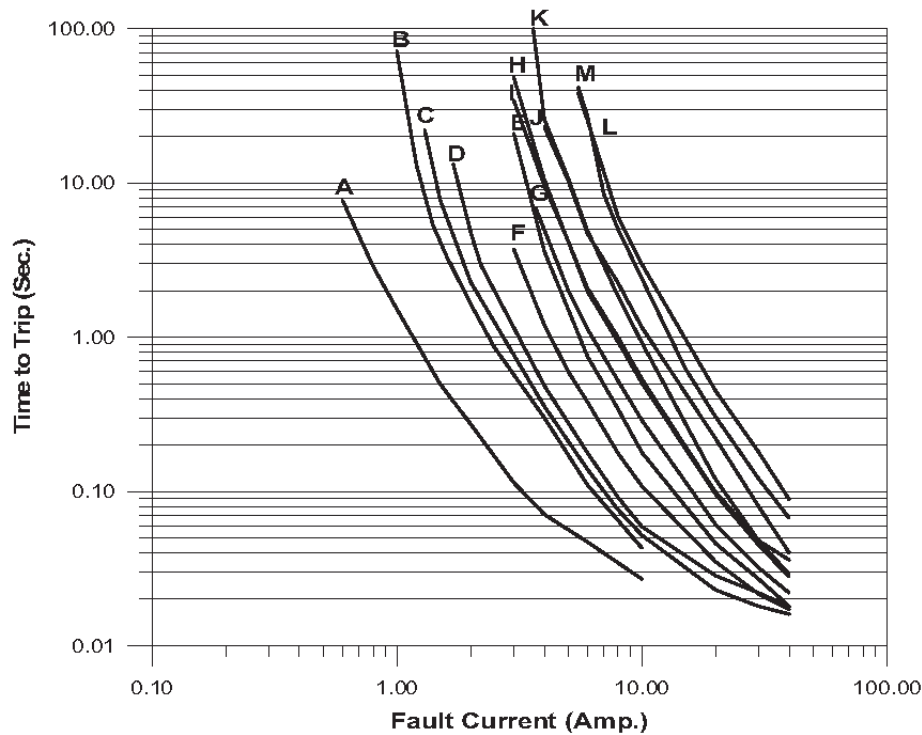
Specifications are subject to change without notice

Order  
Information

| Qty. | Order-<br>Number | Model | Packaging |
|------|------------------|-------|-----------|
|      |                  |       |           |

t.b.d. = to be determined  
p = pending

## SMD2920



A: SMD2920P030TS/TF  
 B: SMD2920P050TS/TF  
 C: SMD2920P075TS/TF  
 D: SMD2920P075TS/TF/60  
 E: SMD2920P100TS/TF  
 F: SMD2920P125TS/TF  
 G: SMD2920P150TS/TF  
 H: SMD2920P185TS/TF  
 I: SMD2920P200TS/TF/24  
 J: SMD2920P250TS/TF  
 K: SMD2920P260TS/TF  
 L: SMD2920P300TS/TF  
 M: SMD2920P300TS/TF/15

## Thermal Derating Chart

| Model               | Ambient Operation Temperature - I <sub>hold</sub> (A) |        |        |        |        |        |        |        |        |
|---------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                     | -40 °C                                                | -20 °C | 0 °C   | 23 °C  | 40 °C  | 50 °C  | 60 °C  | 70 °C  | 85 °C  |
| SMD2920P030TS/TF    | 0.45                                                  | 0.40   | 0.35   | 0.30   | 0.25   | 0.23   | 0.20   | 0.17   | 0.14   |
| SMD2920P050TS/TF    | 0.76                                                  | 0.67   | 0.59   | 0.50   | 0.42   | 0.38   | 0.33   | 0.29   | 0.23   |
| SMD2920P075TS/TF    | 1.13                                                  | 1.01   | 0.88   | 0.75   | 0.62   | 0.56   | 0.50   | 0.44   | 0.34   |
| SMD2920P075TS/TF/60 | t.b.d.                                                | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. | t.b.d. |
| SMD2920P100TS/TF    | 1.66                                                  | 1.47   | 1.29   | 1.10   | 0.91   | 0.83   | 0.73   | 0.64   | 0.50   |
| SMD2920P125TS/TF    | 1.89                                                  | 1.68   | 1.46   | 1.25   | 1.04   | 0.94   | 0.83   | 0.73   | 0.56   |
| SMD2920P150TS/TF    | 2.27                                                  | 2.01   | 1.76   | 1.50   | 1.25   | 1.13   | 1.00   | 0.87   | 0.74   |
| SMD2920P185TS/TF    | 2.80                                                  | 2.47   | 2.17   | 1.85   | 1.54   | 1.39   | 1.22   | 1.07   | 0.85   |
| SMD2920P200TS/TF    | 3.02                                                  | 2.68   | 2.34   | 2.00   | 1.66   | 1.50   | 1.32   | 1.16   | 0.90   |
| SMD2920P200TS/TF/24 | 3.14                                                  | 2.77   | 2.42   | 2.00   | 1.73   | 1.56   | 1.38   | 1.20   | 0.98   |
| SMD2920P250TS/TF    | 3.78                                                  | 3.35   | 2.93   | 2.50   | 2.08   | 1.88   | 1.65   | 1.45   | 1.13   |
| SMD2920P260TS/TF    | 3.64                                                  | 3.25   | 2.91   | 2.60   | 2.26   | 2.08   | 1.95   | 1.74   | 1.48   |
| SMD2920P300TS/TF    | 4.53                                                  | 4.02   | 3.51   | 3.00   | 2.52   | 2.26   | 1.99   | 1.75   | 1.34   |
| SMD2920P300TS/TF/15 | 4.20                                                  | 3.85   | 3.44   | 3.00   | 2.69   | 2.50   | 2.31   | 2.12   | 1.83   |