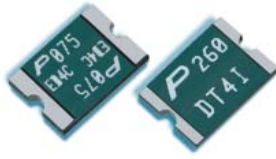


# SMD2920



## 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

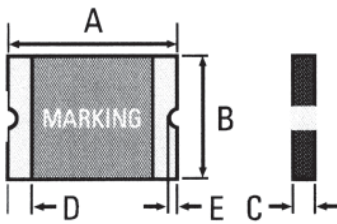
**Thermal Shock**  
MIL-STD-202F, Method 107G  
+85 °C to -40 °C 20 times, -30 % typical resistance change

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

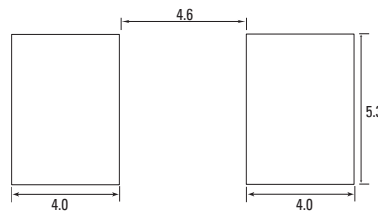
**Solvent Resistance**  
MIL-STD-202, Method 215, no change

**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  | 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            |                       |                       | Approvals |     |
|---------------------|--------------------------|--------------------------|-----------------------------|--------------------------|------------------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------|-----|
|                     |                          |                          |                             |                          |                              |                            | R <sub>min.</sub> (Ω) | R <sub>typ.</sub> (Ω) | R <sub>max.</sub> (Ω) | 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>)

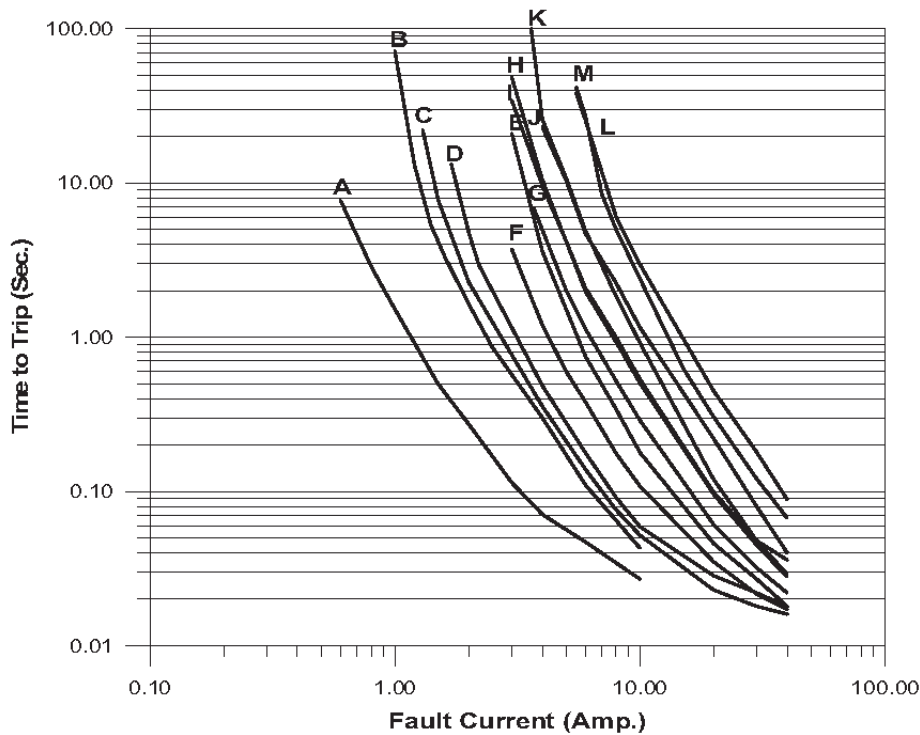
- P<sub>d</sub> = Power dissipated from device when in the tripped state at 20 °C still air.
  - R<sub>min.</sub> = Minimum resistance of device in initial (un-soldered) state.
  - R<sub>max.</sub> = Maximum resistance of device at 20 °C measured one hour after tripping for 20 s.
- Caution: Operation 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: SMD2920P150TS/TF
- G: SMD2920P185TS/TF
- H: SMD2920P200TS/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 - $I_{hold}$ (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   |