



Surface Mount Resettable PTCs

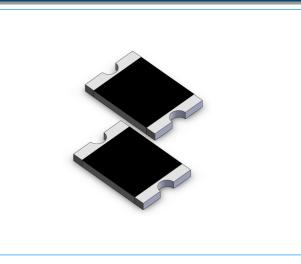
SCF150-2920RE

Features

- u Surface Mount Devices
- **u** Standard 7555mm(2920mils) footprint
- **u** Surface mount packaging for automated assembly
- u Compatible with Pb and Pb-free solder reflow profiles.
- u UL, C-UL, TUV
- u RoHS, Reach, HF compliance

Applications

- u Computer motherboard,Modem
- u Industrial controls
- u IEEE ports
- u Portable electronics



Electrical Parameters

| Part Number | Hold Current | Trip Current | Rated Voltage | Max Current | Typical Power | Maximum Time To T _{rip} | | Resistance | |
|---------------|--------------------------|--------------------------|---------------------------|-------------------------|---------------------------|-------------------------------------|----------------|-------------------------|---------------|
| | l _{hold} (A) | l _{trip} (A) | V _{max} (Vdc) | l _{max} (A) | P _{dtyp.} (W) | Current (A) | Time (Sec.) | R _{min} (Ω) | R 1max (Ω) |
| SCF150-2920RE | 1.50 | 3.00 | 33 | 40 | 1.5 | 8.0 | 2.0 | 0.035 | 0.230 |

I $_{\text{hold}}\text{=}$ Hold current: maximum current at which the device will not trip in 25 $^\circ\!\mathrm{C}$ still air.

I $_{trip}\text{=}$ Tripping Current minimum current at which the device will trip in 25 $^\circ\!\mathrm{C}$ still air.

V max= Maximum voltage device can withstand without damage at rated current

I max= Maximum fault current device can withstand without damage at rated voltage.

T_{trip}=Maximum time to trip(s) at assigned current.

P_{dtyp.}= Rated working power.

R $_{\text{min}}\text{=}$ Minimum resistance of device prior to trip at 25 $^\circ\!\!\mathbb{C}$.

R $_{1max}$ = Maximum resistance of device is measured one hours post reflow at 25 $^{\circ}$ C.

Note: All electrical function test is conducted after PCB mounted.

Thermal Derating

| SCF150-2920RE | Maximum Ambient Operating Temperature (℃) | | | | | | | | |
|-----------------|---|------|------|------|------|------|------|------|------|
| 301 130-2920NL | -40 | -20 | 0 | 25 | 40 | 50 | 60 | 70 | 85 |
| Hold Current(A) | 2.27 | 2.01 | 1.76 | 1.50 | 1.25 | 1.13 | 1.00 | 0.87 | 0.74 |
| Trip Current(A) | 4.54 | 4.02 | 3.52 | 3.00 | 2.50 | 2.26 | 2.00 | 1.74 | 1.48 |

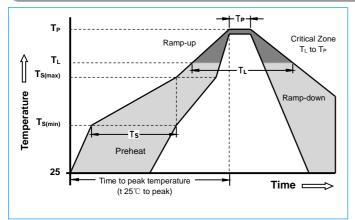




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Solder Reflow Recommendation

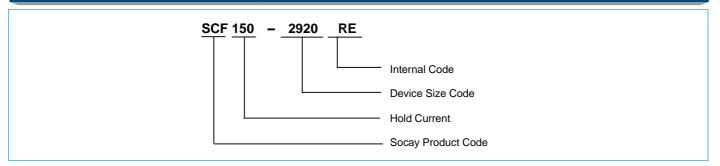


| Profile Feature | Pb-Free Assembly |
|---|--|
| Average Ramp-Up Rate (T _s max to T _P) | 3℃/second max. |
| Preheat : Temperature Min (Tsmin) Temperature Max (Tsmax) Time (Tsmin to Tsmax) Time maintained above: Temperature(TL) | 150℃ 200℃ 60-180 seconds 217℃ |
| Time (T∟) | 60-150 seconds |
| Peak/Classification Temperature(T _P): | 260 ℃ |
| Time within 5℃ of actual peak: Temperature | 20-40 seconds |
| Ramp-down Rate: | 6℃/ second max. |
| Time 25℃ to Peak Temperature | 8 minutes max. |

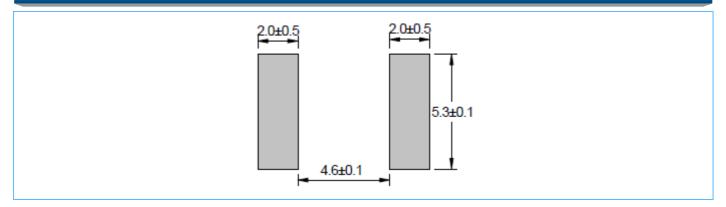
Note:

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Part Numbering



Recommended Pad Layout (Unit: mm)



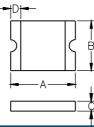




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Product Dimensions (Unit: mm)



| Part Number | А | | В | | С | | D | |
|---------------|------|------|------|------|------|------|------|--|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | |
| SCF150-2920RE | 6.73 | 7.98 | 4.80 | 5.44 | 0.90 | 1.30 | 0.30 | |

Packaging Quantity

| Part Number | Packaging Option | Quantity |
|---------------|------------------|----------|
| SCF150-2920RE | Tape & Reel | 1000 PCS |

Warning

- **u** Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- **u** PPTC device are intended for occasional over-current protection. Application for repeated over-current condition and/or prolonged trip are not anticipated.
- u Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.