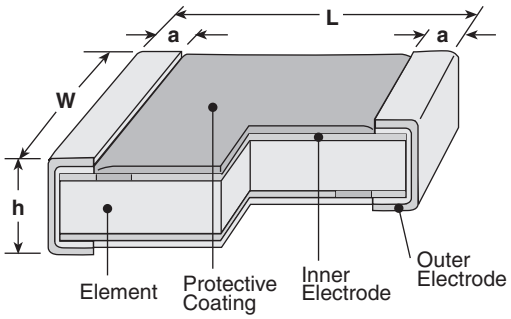
EU RoHS COMPLIANT


## features

- Quickly breaks extraordinary current
- Small size SMD type
- The least rise in resistance after reflow soldering
- Latched if/when extraordinary current continues
- The least rise in resistance by repeating trips
- UL143A File No. E250106
- c-UL CAN/CAS-C222, No.0 and Technical Information Letter No. CA-3A File No. E250106 approved
- Marking: Green body color
- Products with lead-free terminations meet EU RoHS and China RoHS requirements

## dimensions and construction




| Type | Dimensions inches (mm) | | | |
|---|---|---|---|---|
| | L | W | h | a |
| SF45 (1812) | .177±.008 (4.5±0.2) | .126±.008 (3.2±0.2) | .016±.008 (0.4±0.2) | .020±.008 (0.5±0.2) |

## ordering information

New Part #

| SF | 45 | N | 110 | T | TE |
|---|---|---|---|---|---|
| Type | Style | Characteristic | Hold Current | Termination Material | Packaging |
| | 45: 4.5 x 3.2mm | N: Normal | 050: 0.50A<br>075: 0.75A<br>110: 1.1A | T: Sn | TE: Embossed plastic tape |

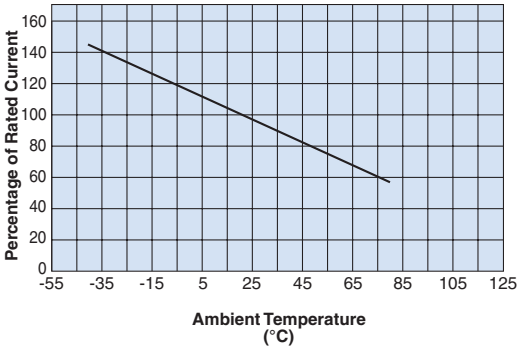
For further information on packaging, please refer to Appendix A.

## applications and ratings

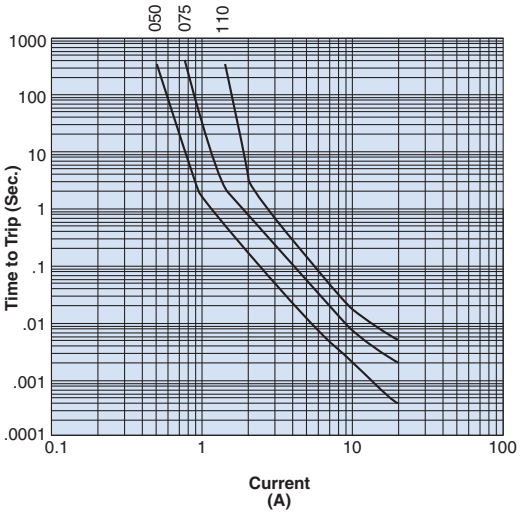
| Part Designation | Hold Rating | Max. Rated Voltage (DCV) | Max. Rated Current (A) | Trip Current (A) | Initial Resistance R Type (Ω) | Resistance after Tripping R1 Max. (Ω) | Power Dissipation PD (W) | Operating Temperature Range |
|---|---|---|---|---|---|---|---|---|
| SF45N050 | 0.50A | 15.0 | 40 | 1.00 | 0.49 | 0.85 | 0.6 | -40°C to +85°C |
| SF45N075 | 0.75A | 13.2 | | 1.50 | 0.24 | 0.41 | | |
| SF45N110 | 1.10A | 6.0 | | 2.20 | 0.15 | 0.21 | | |

## environmental applications

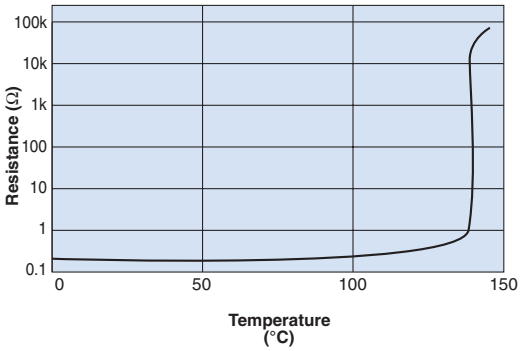
### Derating Curve




### Time to Trip Characteristics




### R-T Characteristics




### Performance Characteristics

| Parameter | Requirement Limit | Test Method |
|---|---|---|
| Trip Endurance | Without damage under 24 hours of current sending | Use the device which has been left for 15 minutes or more in 25°C set voltage to be applied to the element at maximum rated voltage. And set current to be applied within the range between trip current and maximum rated current |
| Trip Cycle Life (ON-OFF Test) | Without damage after 1000 cycles | Use the device which has been left for 15 minutes or more in 25°C set voltage and current to be applied to maximum rated voltage and maximum rated current respectively. Apply rated voltage for 5 seconds and 55 seconds off |
| Heat Resistance | Without Damage | 85°C ± 3°C, 1000 hours |
| Cold Resistance | Without Damage | -40°C ± 3°C, 1000 hours |
| Humidity Resistance | Without Damage | 85°C ± 3°C, 85% RH, 1000 hours |
| Heat-Cold Cycling | Without Damage | -40°C ± 3°C (30 minutes), +85°C ± 3°C (30 minutes), 20 cycles |