



**THE DATASHEET OF
C310T-SC-2-R-TR1**



C310T-SC

3.6 mm x 10 mm Time-delay, axial lead ceramic tube fuses



Product features

- Time-delay
- Designed to IEC60127-3
- Nickel-plated brass single end cap construction
- 3.6 mm x 10 mm compact design utilizes less board space

Applications

Primary circuit protection:

- Power supplies
- LED and general lighting
- Consumer electronics
- Desktop, laptop and notebook
- Test equipment

Agency information

- cURus Recognition file number: E19180, Guide JDYX2/JDYX8
- CCC: 2019010207248211
- KC-Mark: File SU05011-13001, SU05030-13006
- TUV: J50247281, J50235242
- VDE: 40036716

Ordering

- Use ordering number (see page 6 for details)

Packaging suffixes

- -TR1 (1500 parts per 10" diameter reel, tape width 60 mm)
- -TR2 (1500 parts per 10" diameter reel, tape width 52 mm)

Electrical characteristics

| I_n | $1.5I_n$ min minute | $2.1I_n$ max minute | $2.75I_n$ min ms | max s | $4I_n$ min ms | max s | $10I_n$ min ms | max ms |
|----------|---------------------------|---------------------------|------------------------|----------|---------------------|----------|----------------------|-----------|
| 2A- 6.3A | 60 | 2 | 400 | 10 | 150 | 3 | 20 | 150 |

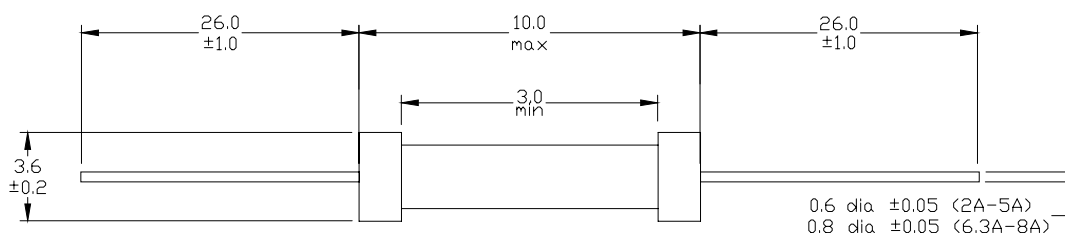
| I_n | $1.5I_n$ min minute | $3I_n$ min ms | max s | $10I_n$ min ms | max ms |
|-------|---------------------------|---------------------|----------|----------------------|-----------|
| 8A | 60 | 400 | 10 | 20 | 150 |

Product specifications

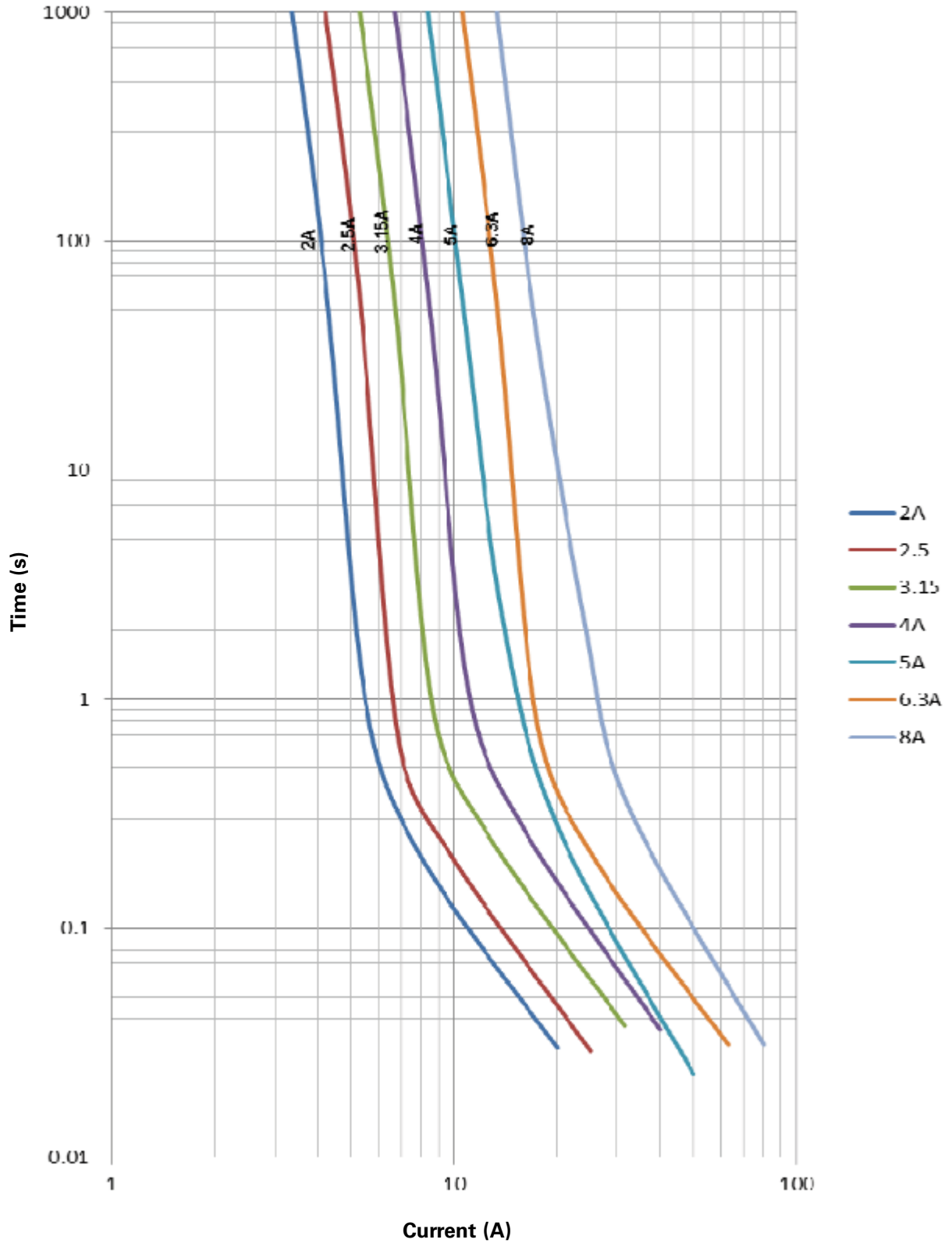
| Part number ¹ | Current rating (A) | Voltage rating (Vac) | Interrupting rating at rated voltage (A) | Typical DC cold resistance (mΩ) | Typical melting I ² t (A ² s) | Maximum voltage drop (mV) | Part marking: engraved on end cap 1st end | Part marking: engraved on end cap 2nd end | cURus | KC | CCC | TUV | VDE |
|--------------------------|--------------------|----------------------|--|---------------------------------|---|---------------------------|---|---|-------|----|-----|-----|-----|
| C310T-SC-2-R | 2 | 250 | 35 | 26.5 | 12 | 100 | T2A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-2.5-R | 2.5 | 250 | 35 | 19.5 | 18.5 | 100 | T2.5A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-3.15-R | 3.15 | 250 | 35 | 14.7 | 38 | 100 | T3.15A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-4-R | 4 | 250 | 40 | 10.6 | 58 | 100 | T4A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-5-R | 5 | 250 | 50 | 7.3 | 57.5 | 100 | T5A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-6.3-R | 6.3 | 250 | 63 | 7.1 | 123 | 100 | T6.3A L 250V | BUSS C310T-SC | x | x | x | x | x |
| C310T-SC-8-R | 8 | 250 | 80 | 3.7 | 200 | 80 | T8A L 250V | BUSS C310T-SC | x | | | | |

1. Part Number Definition: C310T-SCxxx-R
 C310T = Product code
 SC = Single cap
 xxx = Ampere rating
 -R suffix = RoHS compliant

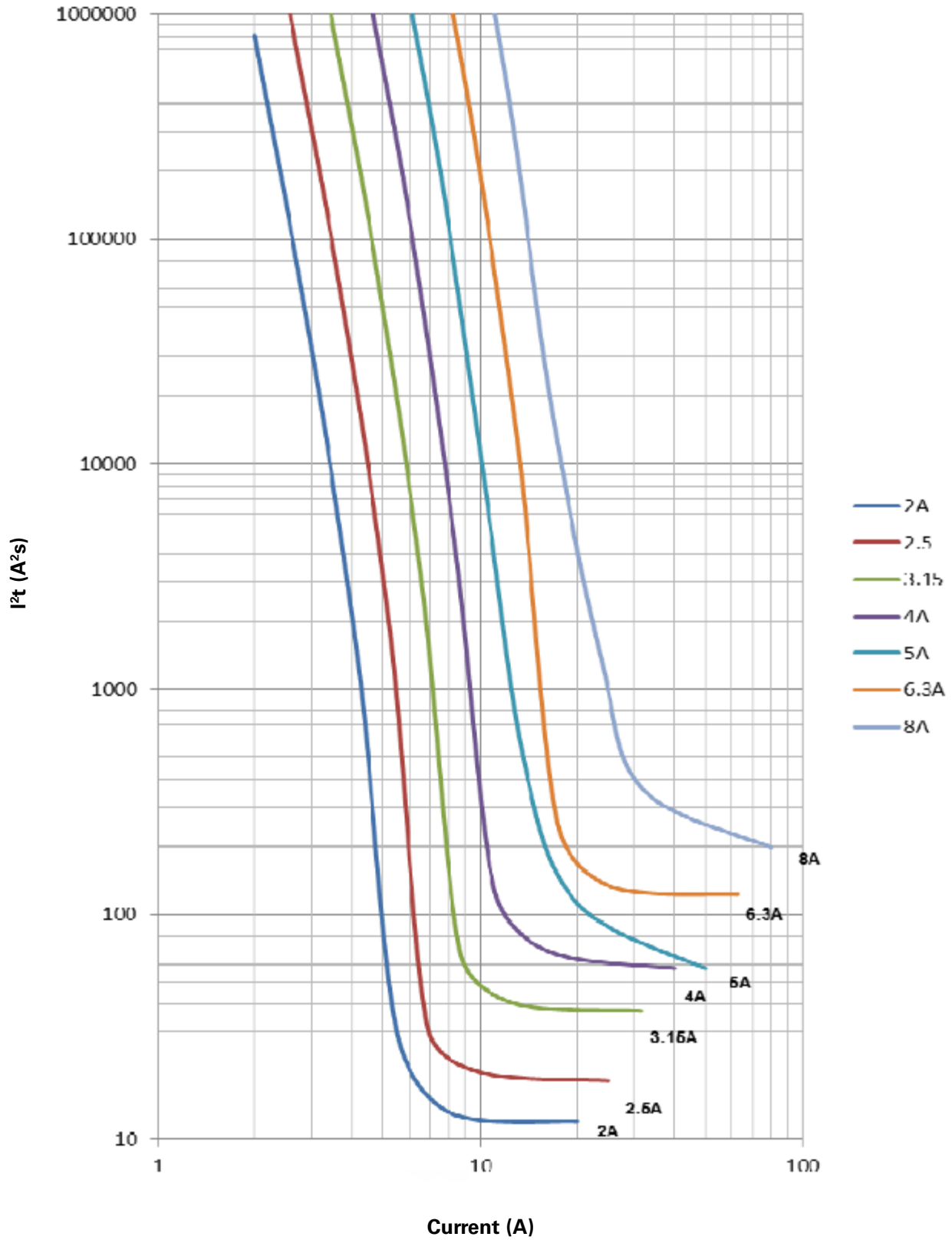
Dimensions—mm



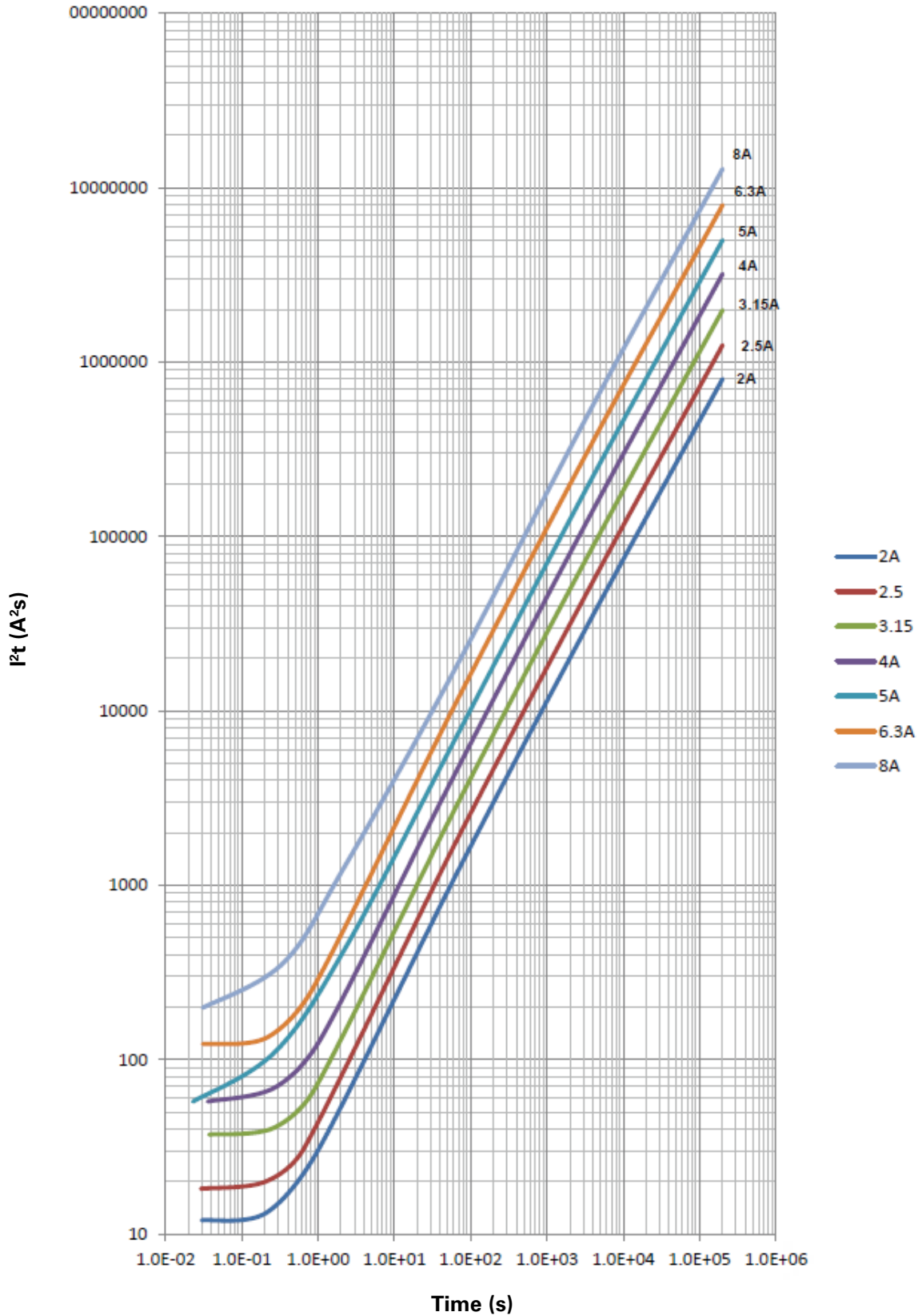
Time vs. current curve



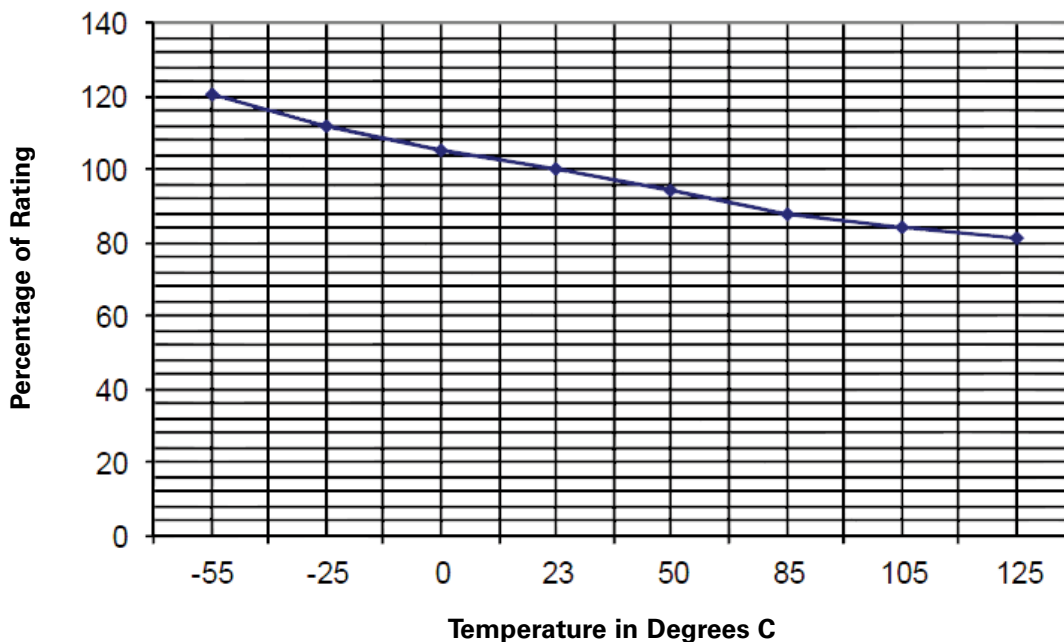
I²t vs. current curve



I²t vs. time curve



Temperature derating curve



General specifications

Operating temperature: -55 °C to +125 °C (with derating)

Thermal shock: MIL-STD- 202G, Method 107G, test condition B (5 cycles -65 °C to +125 °C)

Vibration: MIL-STD- 202G, Method 201A

Humidity: MIL-STD- 202G, Method 103B, test condition A

Salt spray: MIL-STD- 202G, Method 101D, Test condition B

Ordering codes

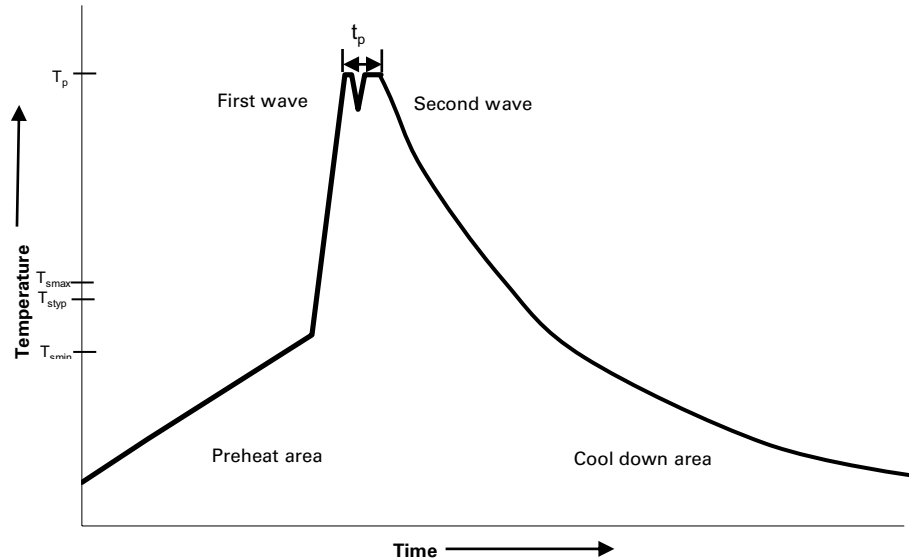
The ordering code is the part number replacing the “!” with a “-” plus adding the packaging suffix.

Packaging suffixes

- -TR1 (1500 parts per 10” diameter reel, tape width 60 mm)
- -TR2 (1500 parts per 10” diameter reel, tape width 52 mm)

| Part number | Ordering codes | |
|-----------------|---------------------|---------------------|
| | -TR1 option | -TR2 option |
| C310T-SC-2-R | C310T-SC-2-R-TR1 | C310T-SC-2-R-TR2 |
| C310T-SC-2.5-R | C310T-SC-2-5-R-TR1 | C310T-SC-2-5-R-TR2 |
| C310T-SC-3.15-R | C310T-SC-3-15-R-TR1 | C310T-SC-3-15-R-TR2 |
| C310T-SC-4-R | C310T-SC-4-R-TR1 | C310T-SC-4-R-TR2 |
| C310T-SC-5-R | C310T-SC-5-R-TR1 | C310T-SC-5-R-TR2 |
| C310T-SC-6.3-R | C310T-SC-6-3-R-TR1 | C310T-SC-6-3-R-TR2 |
| C310T-SC-8-R | C310T-SC-8-R-TR1 | C310T-SC-8-R-TR2 |

Wave solder profile



Reference EN 61760-1:2006

| Profile feature | Standard SnPb solder | Lead (Pb) free solder |
|---|---|---|
| Preheat | | |
| • Temperature min. (T_{smin}) | 100 °C | 100 °C |
| • Temperature typ. (T_{styp}) | 120 °C | 120 °C |
| • Temperature max. (T_{smax}) | 130 °C | 130 °C |
| • Time (T_{smin} to T_{smax}) (t_s) | 70 seconds | 70 seconds |
| Δ preheat to max Temperature | 150 °C max. | 150 °C max. |
| Peak temperature (T_p)* | 235 °C – 260 °C | 250 °C – 260 °C |
| Time at peak temperature (t_p) | 10 seconds max 5 seconds max each wave | 10 seconds max 5 seconds max each wave |
| Ramp-down rate | ~ 2 K/s min ~3.5 K/s typ ~5 K/s max | ~ 2 K/s min ~3.5 K/s typ ~5 K/s max |
| Time 25 °C to 25 °C | 4 minutes | 4 minutes |

Manual solder

+350 °C (4-5 seconds by soldering iron), generally manual/hand soldering is not recommended

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Printed in USA
Publication No. 10404 PCN19017M
December 2019



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