C310FH 3.1 mm x 10 mm Fast-acting, axial lead ceramic tube fuses



Product features

- Fast-acting
- High breaking capacity
- · Designed to IEC60127-3/-7
- Nickel-plated brass single end cap construction
- 3.1 mm x 10 mm compact design utilizes less board space
- Halogen free, lead free, RoHS compliant

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

BUSSMANN

- CQC: 14012107423
- KC-Mark: File SU05030-14001
- TUV: R50278944

Ordering

• Use ordering number (see page 4 for details)

Packaging suffixes

- -TR1 (1500 parts on tape and reel, tape width 60 mm)
- -TR2 (1500 parts on tape and reel, tape width 52 mm)
- E-TR1 (Epoxy coated fuse, 1500 parts on tape and reel, tape width 60 mm)

Option code

- Blank (Standard fuse)
- E (Epoxy coated)



Electrical characteristics

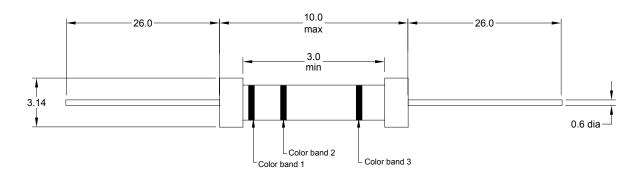
| <u>I.</u> | 1.51 min hours | 2.11 max minute | 2.751 _n min ms | max s | 4l min ms | max ms | 10l max ms | |
|---------------|----------------------|-----------------------|---------------------------------|----------|-----------------|-----------|------------------|--|
| 1.25 A- 2.0 A | 1.0 | 30 | 10 | 3.0 | 3.0 | 300 | 20 | |

Product specifications

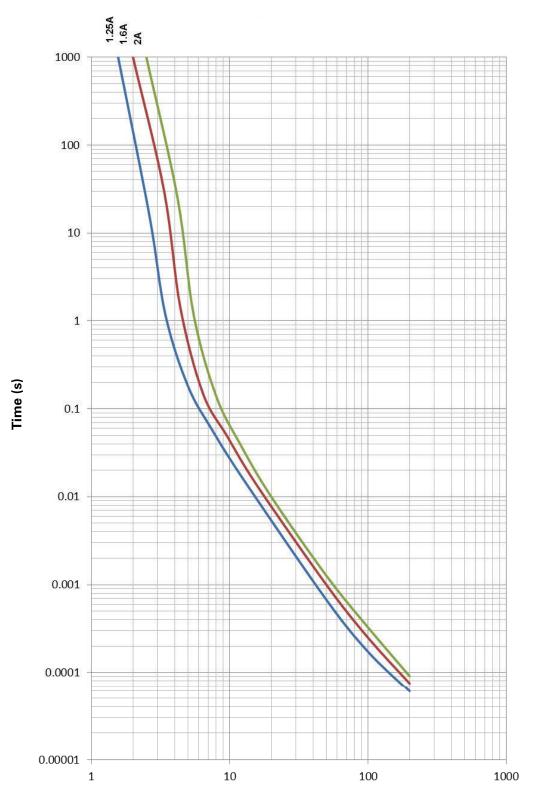
| Part number ¹ | Current rating (A) | Voltage rating (V _{ac}) | Interuppting rating at rated volt- age (A) | Typical DC cold resistance (mΩ) | Typical melting I²t (A²s) | Maximum voltage drop (mV) | Color code band 1 | Color code band 2 | Color code band 3 |
|--------------------------|--------------------------|---|---|--|---------------------------------|------------------------------------|-------------------|-------------------|-------------------|
| C310FH-1.25-R | 1.25 | 250 | 150 | 60 | 2.7 | 120 | Brown | Red | Red |
| C310FH-1.6-R | 1.6 | 250 | 150 | 55 | 3.0 | 120 | Brown | Blue | Red |
| C310FH-2-R | 2.0 | 250 | 150 | 30 | 4.9 | 120 | Red | Black | Red |

1. Part Number Definition: C310FH-xxx-R C310FH = Product code xxx = Ampere rating -R suffix = RoHS compliant

Dimensions-mm

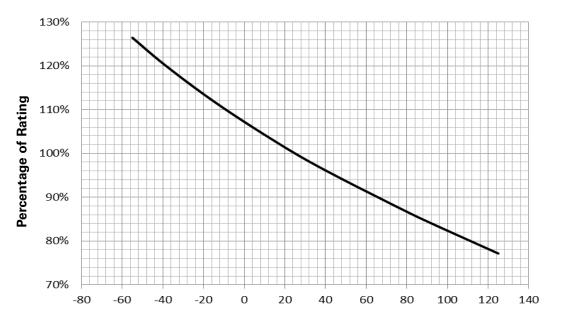


Time vs. current curve



Current (A)

Temperature derating curve



Temperature in Degrees C

Environmental data

| Terminal strength: MIL-STD-202G, Method 211A, test condition A | | | | | |
|---|--|--|--|--|--|
| Thermal shock: MIL-STD- 202G, Method 107G, test condition (5 cycles -40 °C to +85 °C) | | | | | |
| Vibration: MIL-STD- 202G, Method 201A | | | | | |
| Life: MIL-STD- 202G, Method 108, (+70 °C at 60% rated current, 1000 hours) | | | | | |

Ordering codes

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

Packaging suffixes

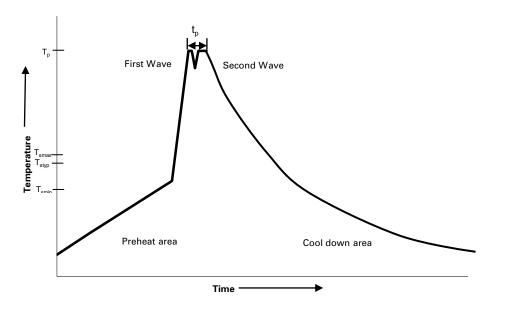
- -TR1 (1500 parts on tape and reel, tape width 60 mm)
- -TR2 (1500 parts on tape and reel, tape width 52 mm)
- E-TR1 (Epoxy coated fuse, 1500 parts on tape and reel, tape width 60 mm)

| | Ordering codes | | | | | | | |
|---------------|-------------------|-------------------|--------------------|--|--|--|--|--|
| Part number | -TR1 option | -TR2 option | E-TR1 option | | | | | |
| C310FH-1.25-R | C310FH-1-25-R-TR1 | C310FH-1-25-R-TR2 | C310FH-1-25-RE-TR1 | | | | | |
| C310FH-1.6-R | C310FH-1-6-R-TR1 | C310FH-1-6-R-TR2 | C310FH-1-6-RE-TR1 | | | | | |
| C310FH-2-R | C310FH-2-R-TR1 | C310FH-2-R-TR2 | C310FH-2-RE-TR1 | | | | | |

Option code

- Blank (Standard fuse)
- E (Epoxy coated)

Wave solder profile



Reference EN 61760-1:2006

| Standard SnPb Solder | Lead (Pb) Free Solder | |
|---|--|--|
| 100°C | 100°C | |
| 120°C | 120°C | |
| 130°C | 130°C | |
| 70 seconds | 70 seconds | |
| 150°C max. | 150°C max. | |
| 235°C – 260°C | 250°C – 260°C | |
| 10 seconds max 5 seconds max each wave | 10 seconds max 5 seconds max each wave | |
| ~ 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 | |
| 4 minutes | 4 minutes | |
| | 100°C 120°C 130°C 70 seconds 150°C max. 235°C – 260°C 10 seconds max 5 seconds max each wave ~ 2 K/s min ~3.5 K/s typ ~5 K/s max | |

Manual solder

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

Reflow solder not recommended

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Electronics Division 1000 Eaton Boulevard Cleveland, OH 44122 United States www.eaton.com/electronics



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