

# 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
- Epoxy coated option available

### 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: 2019010207248424
- 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**

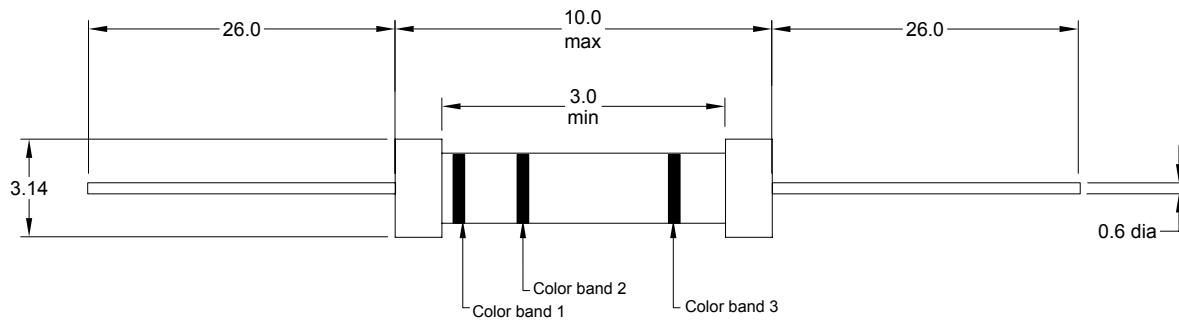
$I_n$	$1.5I_n$ min hours	$2.1I_n$ max minute	$2.75I_n$ min ms	max s	$4I_n$ min ms	max ms	$10I_n$ max ms
1.25 A- 2.0 A	1.0	30	10	3.0	3.0	300	20

**Product specifications**

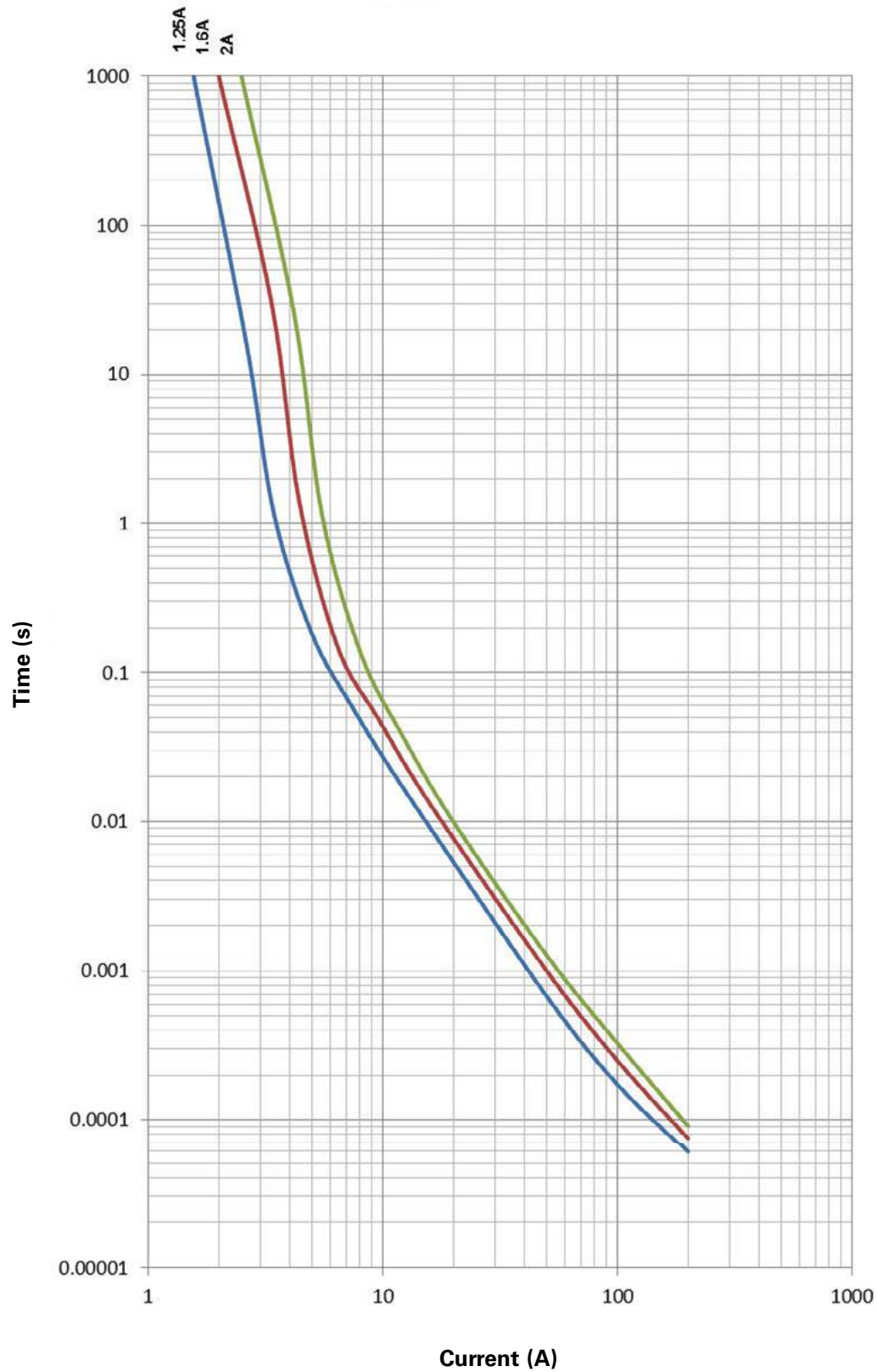
Part number <sup>1</sup>	Current rating (A)	Voltage rating ( $V_{AC}$ )	Interuppting rating at rated voltage (A)	Typical DC cold resistance ( $m\Omega$ )	Typical melting $I^2t$ ( $A^2s$ )	Maximum voltage drop (mV)	Color code band 1	Color code band 2	Color code band 3
C310FH-1.25-R	1.25	250	150	60	2.7	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

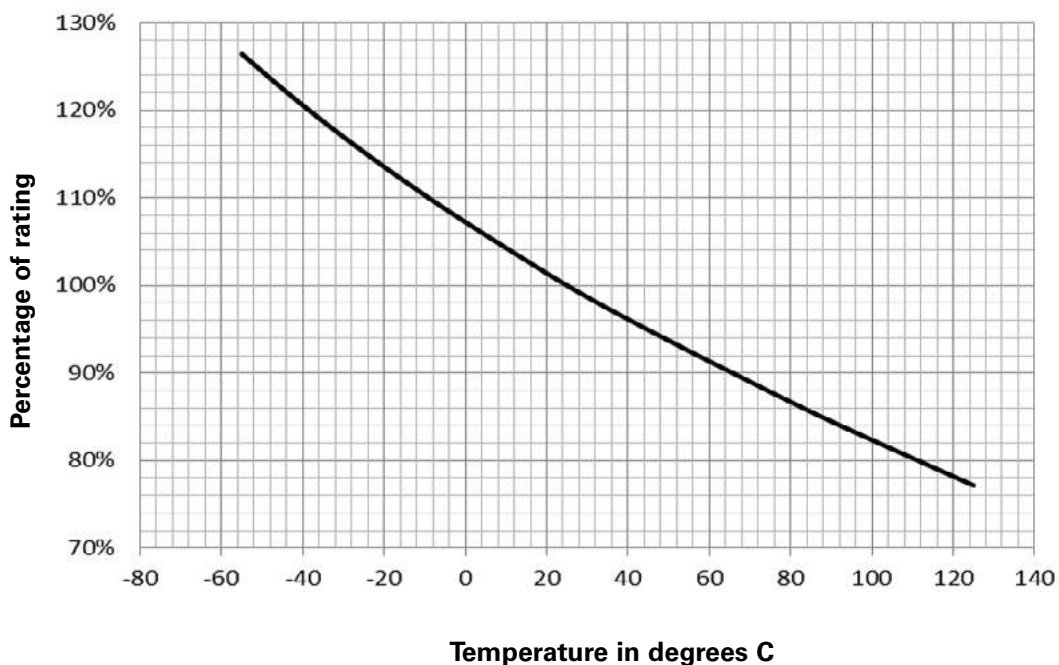
**Dimensions—mm**



Time vs. current curve



### Temperature derating curve



### General specifications

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

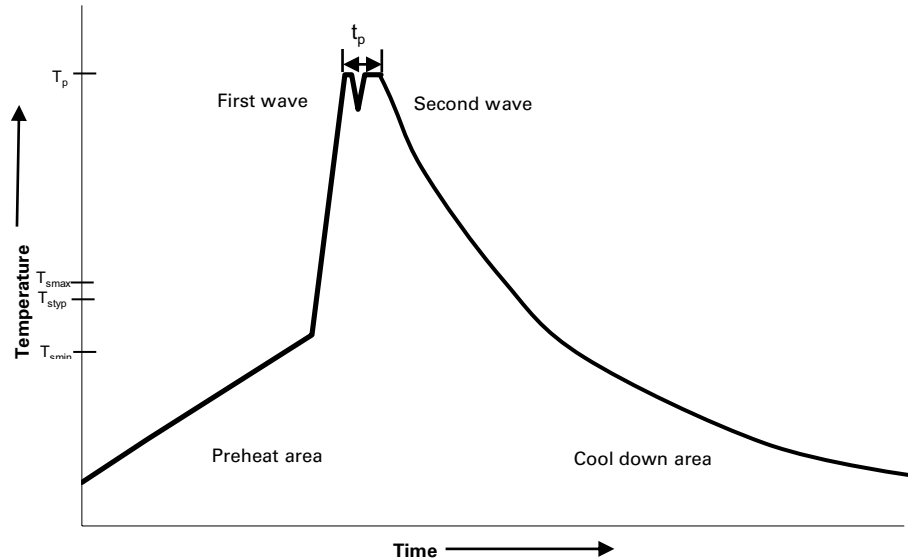
- -TR1 (1500 parts on tape and reel, tape width 60 mm)
- -TR2 (1500 parts on tape and reel, tape width 52 mm)
- E-TR1 (Epoxy coated fuse, 1500 parts on tape and reel, tape width 60 mm)

### Option code

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

Part number	Ordering codes		
	-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

**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
$\Delta$ 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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