## **BUSSMANN** SERIES

# C310T-SC

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



#### **Product description**

- · 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
- 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
- CQC: 13012103410, 12012086705
- 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 <sub>n</sub>	1.5I min minute	2.1I <sub>n</sub> max minute	2.75l <sub>n</sub> min ms	max s	4l min ms	max s	10l <sub>n</sub> min ms	max ms
2A- 6.3A	60	2	400	10	150	3	20	150

<u>I,</u>	1.5l min minute	3I <sub>n</sub> min ms	max s	10l min ms	max ms
8A	60	400	10	20	150

## **Product specifications**

Part number¹	Current rating (A)	Voltage rating (V <sub>AC</sub> )	Interuppting rating at rated volt- age (A)	Typical DC cold resistance (mΩ)	Typical melting I²t (A²s)	Maximum voltage drop (mV)	Part marking: engraved on end cap 1st end	Part marking: engraved on end cap 2nd end	cURus	кс	coc	TUV	VDE
C310T-SC-2-R	2	250	35	26.5	12	100	T2A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-2.5-R	2.5	250	35	19.5	18.5	100	T2.5A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-3.15-R	3.15	250	35	14.7	38	100	T3.15A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-4-R	4	250	40	10.6	58	100	T4A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-5-R	5	250	50	7.3	57.5	100	T5A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-6.3-R	6.3	250	63	7.1	123	100	T6.3A L 250V	BUSS C310T-SC	Х	Х	Х	Х	Х
C310T-SC-8-R	8	250	80	3.7	200	80	T8A L 250V	BUSS C310T-SC	Х				

<sup>1.</sup> Part Number Definition: C310T-SCxxx-R

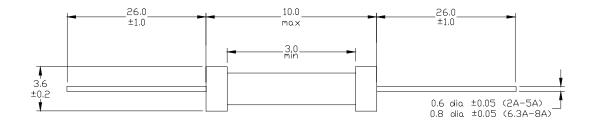
C310T = Product code

SC = Single cap

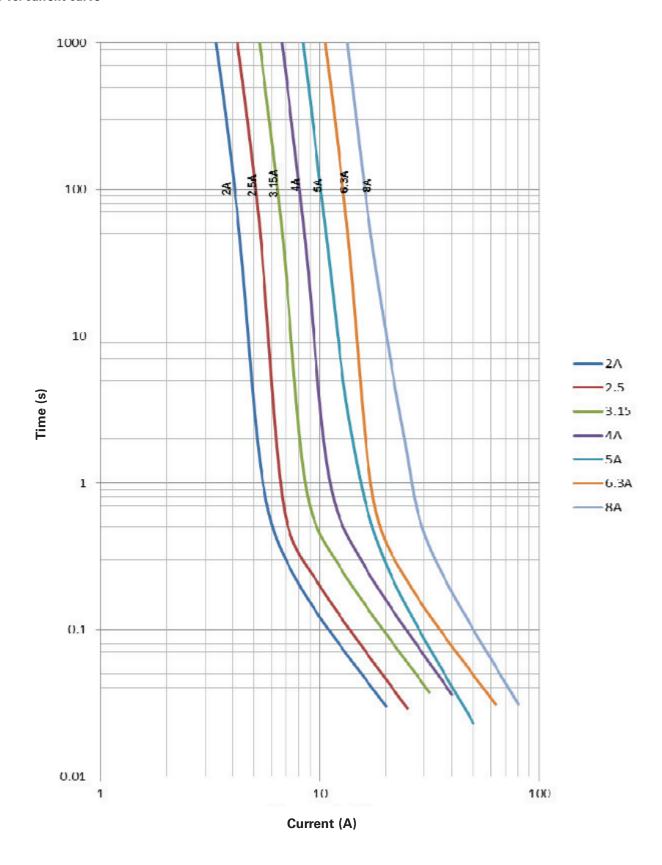
xxx = Ampere rating

-R suffix = RoHS compliant

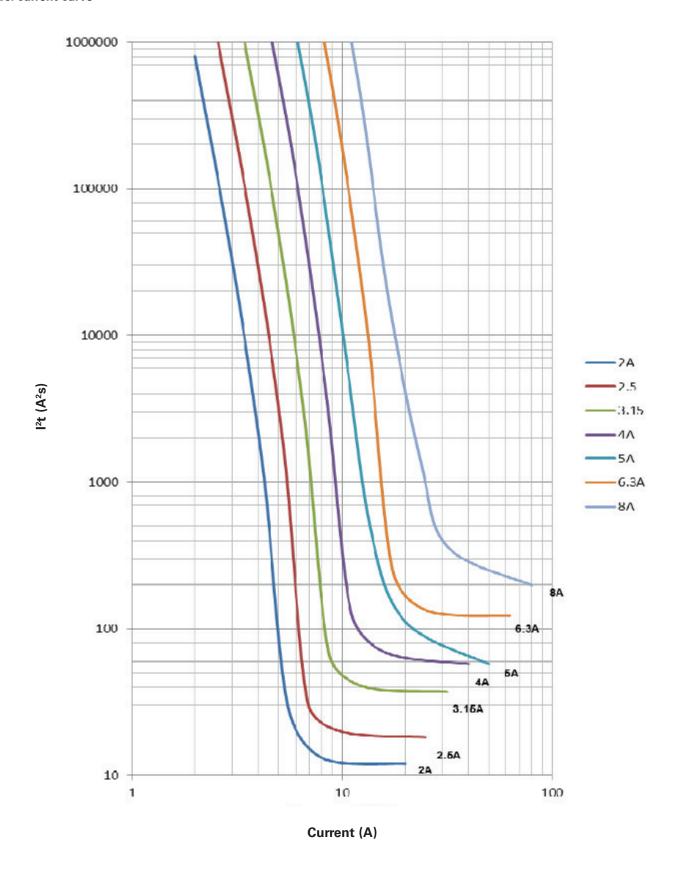
#### **Dimensions-mm**



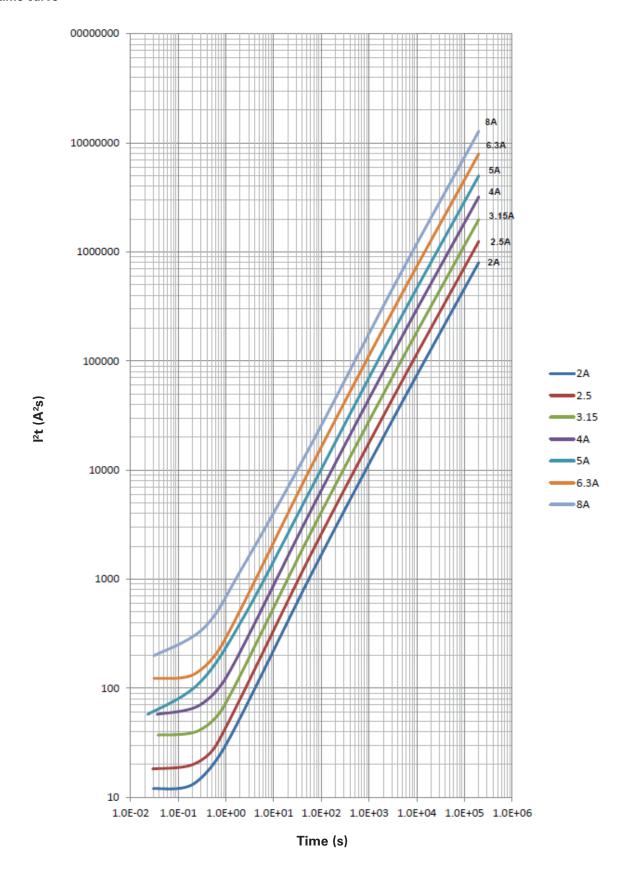
## Time vs. current curve



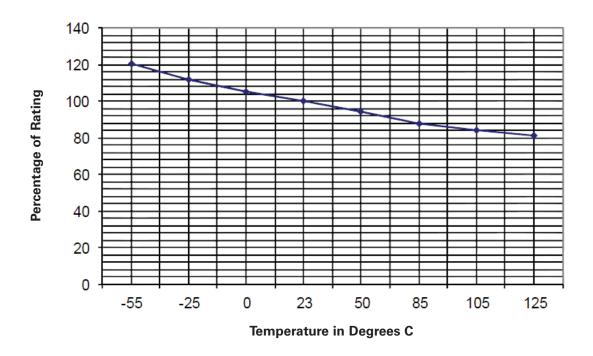
## l²t vs. current curve



## l²t vs. time curve



## Temperature derating curve



#### **Environmental data**

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**

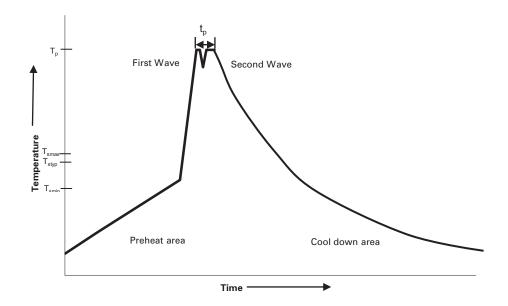
The ordering code is the part number replacing the "." with a "-" plus adding the packaging suffix.

## **Packaging suffixes**

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

	Ordering codes					
Part number	-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 <sub>smin</sub> )	100°C	100°C		
	• Temperature typ. (T <sub>styp</sub> )	120°C	120°C		
	• Temperature max. (T <sub>smax</sub> )	130°C	130°C		
	• Time (T <sub>Smin</sub> to T <sub>Smax</sub> ) (t <sub>S</sub> )	70 seconds	70 seconds		
$\Delta$ preheat to max Temperature		150°C max.	150°C max.		
Peak temperature (Tp)*		235°C – 260°C	250°C – 260°C		
Time at peak temperature (t <sub>p</sub> )		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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