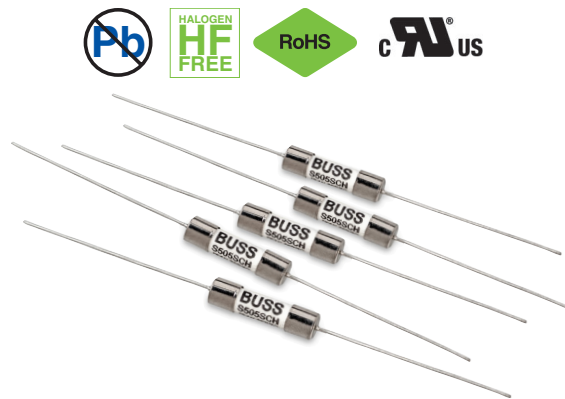


# S505SCH

5 x 20 mm Time-delay, high I<sup>2</sup>t, axial lead, ceramic tube fuses



### Product description

- Time-delay, high breaking capacity
- High I<sup>2</sup>t
- Nickel-plated brass end cap construction
- 5 x 20mm physical size
- Halogen free, lead free, RoHS compliant

### Applications

Primary circuit protection:

- Power supplies
- LED lighting
- LED/LCD televisions
- Appliances and white goods
- Printers

### Agency information

- cURus Recognition file number: E19180, Guide JDYX2/JDYX8
- CQC: 14012118443, 14012118444
- KC-Mark: File SU05030-14002
- TUV: R50294952

### Ordering

- Specify packaging prefix and part number as shown

**Packaging prefix**  
BK/

**Part number**  
S505SCH-1-R

### Packaging prefixes

- BK/20 parts in a carrier, 5 carriers in a box
- TR2/1500 parts per reel, tape width 52mm
- TR3/1500 parts per reel, tape width 54mm

**Electrical characteristics**

I <sub>n</sub>	1.5I <sub>n</sub> min minute	2.1I <sub>n</sub> max minute	2.75I <sub>n</sub> min ms	max s	4I <sub>n</sub> min ms	max s	10I <sub>n</sub> min ms	max ms
3.15A	60	30	750	80	95	5	10	150
5A-6.3A	60	30	750	80	150	5	10	150

**Product specifications**

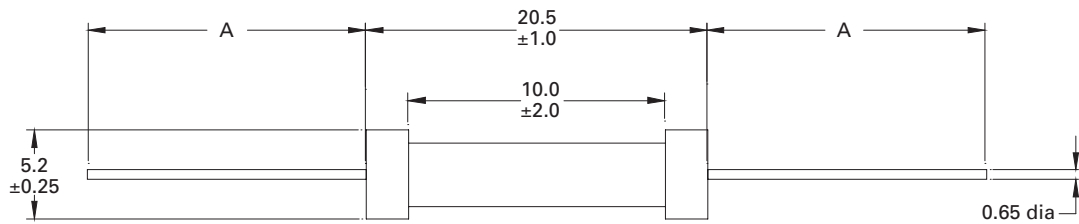
Part number <sup>5</sup>	Voltage rating AC	Interrupting rating at rated voltage (50 Hz) AC <sup>1</sup> (amps)	Typical DC cold resistance (Ω) <sup>2</sup>	Typical pre-arcing I <sup>2</sup> t (A <sup>2</sup> s) <sup>3</sup>	Typical voltage drop (mV) <sup>4</sup>	cURus	KC	CQC	TUV
S505SCH-3.15-R	250	1500	0.017	120	67	x	x	x	x
S505SCH-5-R	250	1500	0.014	160	90	x	x	x	x
S505SCH-6.3-R	250	1500	0.010	330	85	x	x	x	x

- 1 Interrupting ratings 1A to 10A were measured at 70% to 80% PF on AC.
- 2 Typical DC cold resistance measured at <10% of rated current .
- 3. Typical I<sup>2</sup>t value is measured at 10 times the rated current under DC.

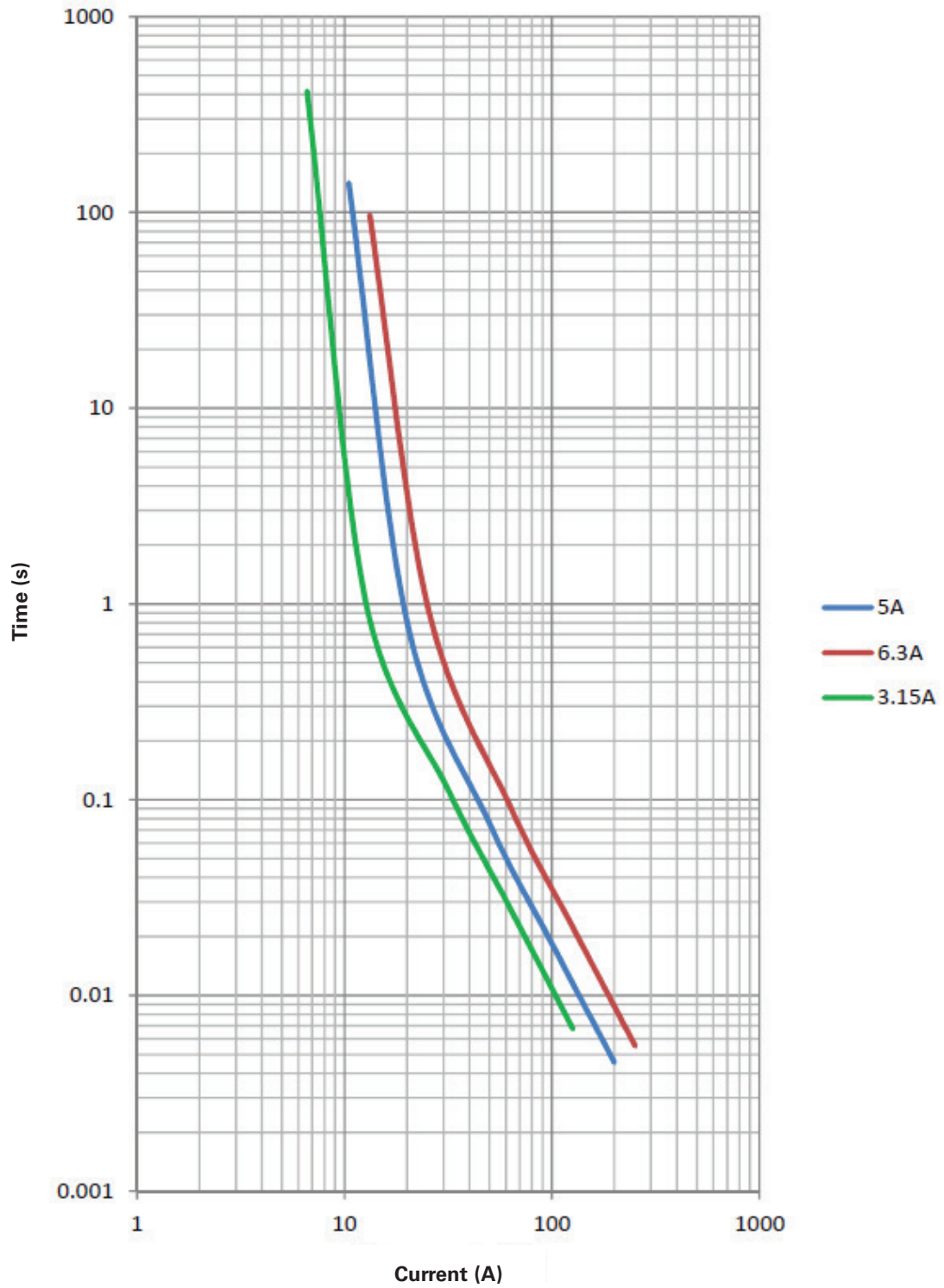
- 4. Typical voltage drop is measured at 20°C ambient temperature at rated current .
- 5. Part number definition: S505SCH-xxx-R  
S505 = Product code  
SCH = Single cap- high I<sup>2</sup>t  
xxx = Ampere rating  
-R = RoHS compliant

**Dimensions—mm**

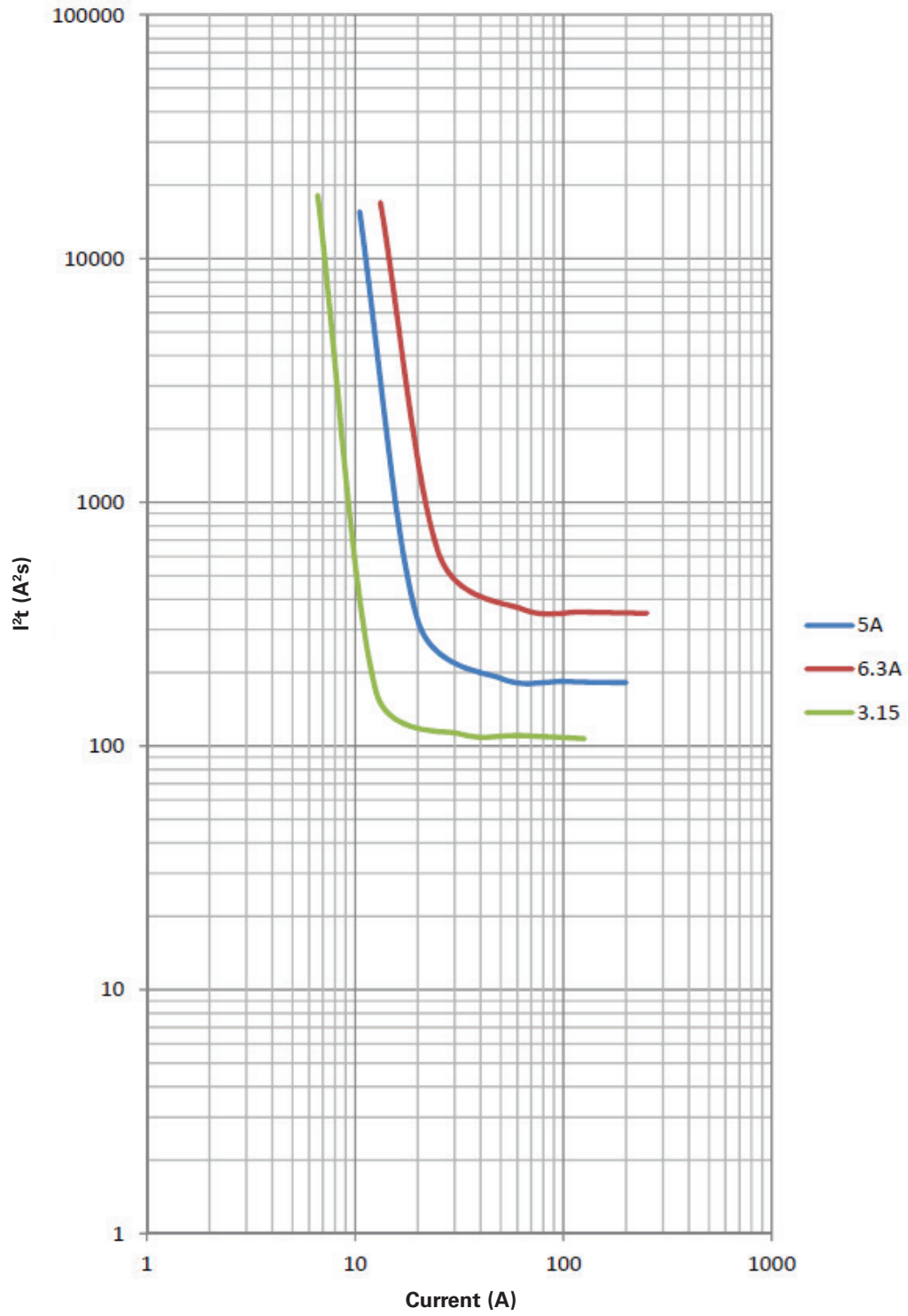
A
BK: 38.1±0.38
TR2: 15.0 typ
TR3: 16.0 typ



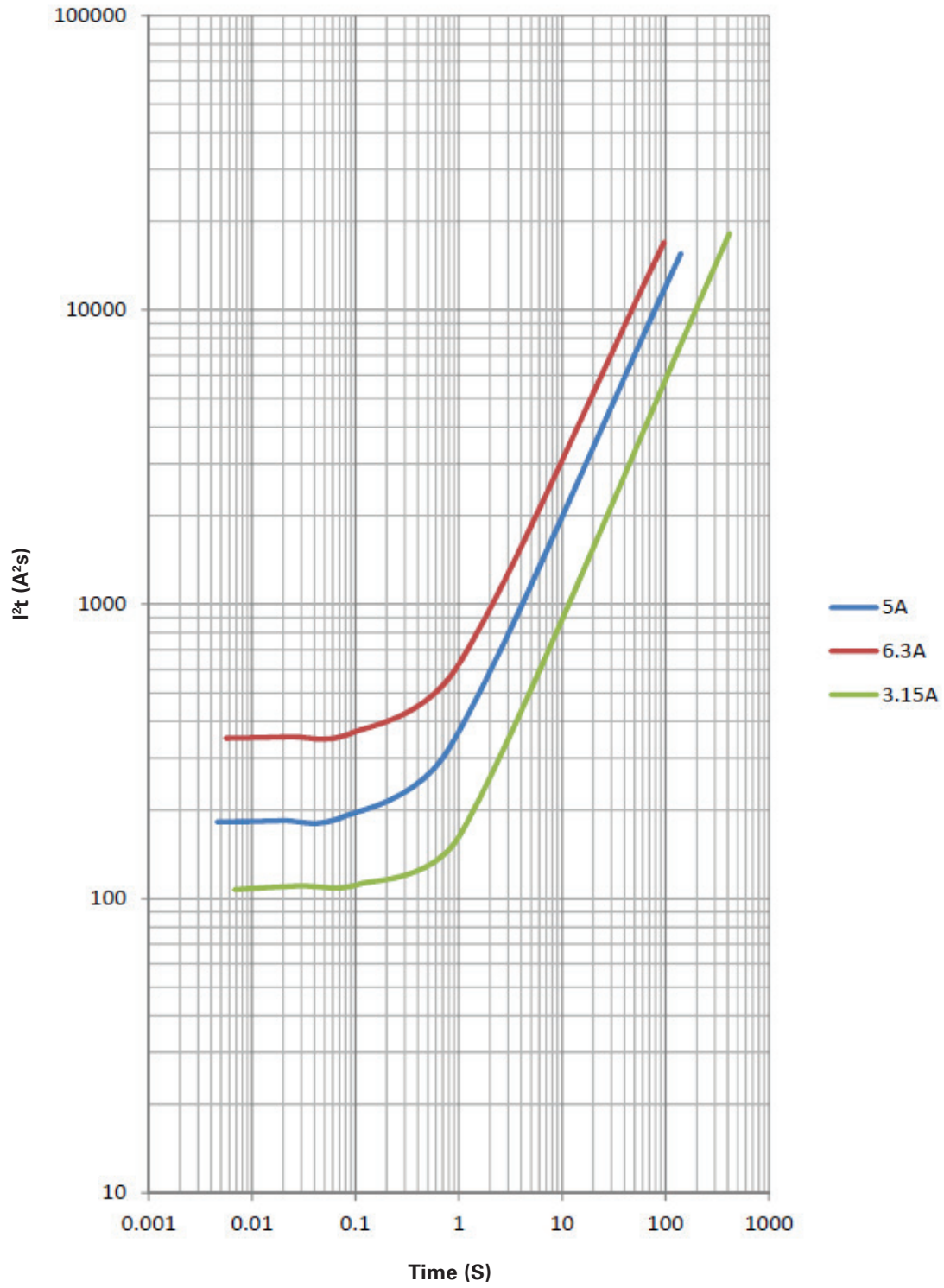
Time vs. current curve



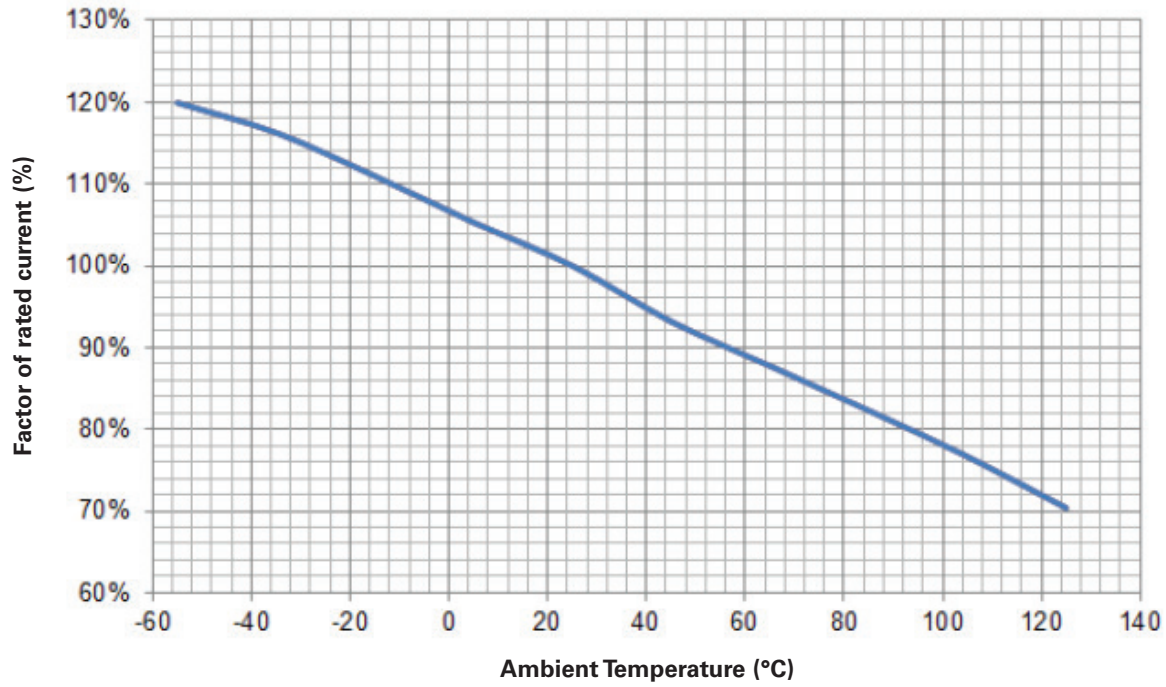
I<sup>2</sup>t vs. current curve



I<sup>2</sup>t vs. time curve



### Temperature derating curve



### Environmental data

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

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

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

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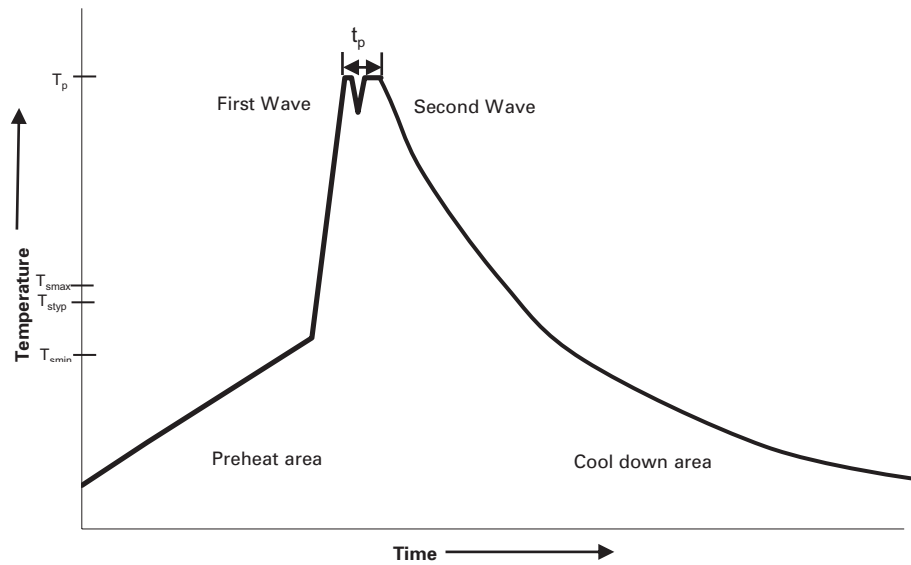
Humidity: MIL-STD- 202G, method 103B, test condition A

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Salt spray: MIL-STD- 202G, method 101E, test condition B

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**Wave solder profile**



**Reference EN 61760-1:2006**

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat	• Temperature min. ( $T_{smin}$ )	100°C
	• Temperature typ. ( $T_{styp}$ )	120°C
	• Temperature max. ( $T_{smax}$ )	130°C
	• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	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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**Eaton**  
**Electronics Division**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
www.eaton.com/elx

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Printed in USA  
Publication No. 10401 BU-SB15188  
May 2015



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