

S505SCH

5 mm x 20 mm Time-delay, high I²t, axial lead, ceramic tube fuses



Product features

- Time-delay, high breaking capacity
- High I²t
- Nickel-plated brass end cap construction
- 5 mm x 20 mm physical size

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
- CCC self certification: 2020970207000209; 2020970207000248
- KC-Mark: File SU05030-14002
- TUV: R50294952

Ordering

- The ordering code is the part number replacing the "." with a "-" plus adding the packaging prefix (i.e. S505SCH-3.15-R; BK-S505SCH-3-15-R)

Packaging prefixes

- BK- (20 parts in a carrier, 5 carriers in a box)
- TR2- (1500 parts per reel, tape width 52 mm)
- TR3- (1500 parts per reel, tape width 54 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
3.15 A	60	30	750	80	95	5	10	150
5 A - 6.3 A	60	30	750	80	150	5	10	150

Product specifications

Part number ⁵	Current rating (A)	Voltage rating (Vac)	Interrupting rating at rated voltage ¹ (50 Hz) (A)	Typical DC cold resistance ² (Ω)	Typical pre-arcing ³ I ² t (A ² s)	Typical voltage drop ⁴ (mV)	cURus	KC	CCC	TUV
S505SCH-3.15-R	3.15	250	1500	0.017	120	67	x	x	x	x
S505SCH-5-R	5.0	250	1500	0.014	160	90	x	x	x	x
S505SCH-6.3-R	6.3	250	1500	0.010	330	85	x	x	x	x

1 Interrupting ratings 3.15 A to 6.3 A were measured at 70% to 80% PF on AC.

2 Typical DC cold resistance measured at <10% of rated current.

3. Typical I²t 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 I²t

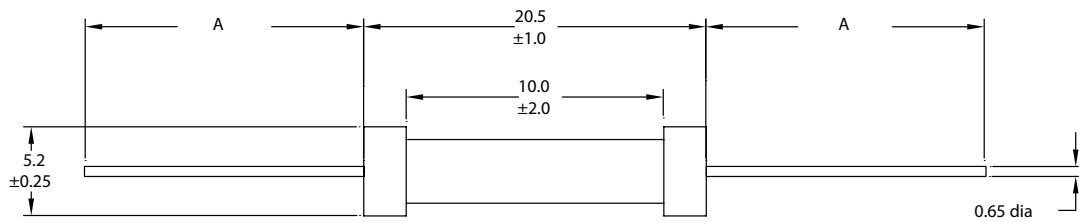
xxx = Ampere rating

-R = RoHS compliant

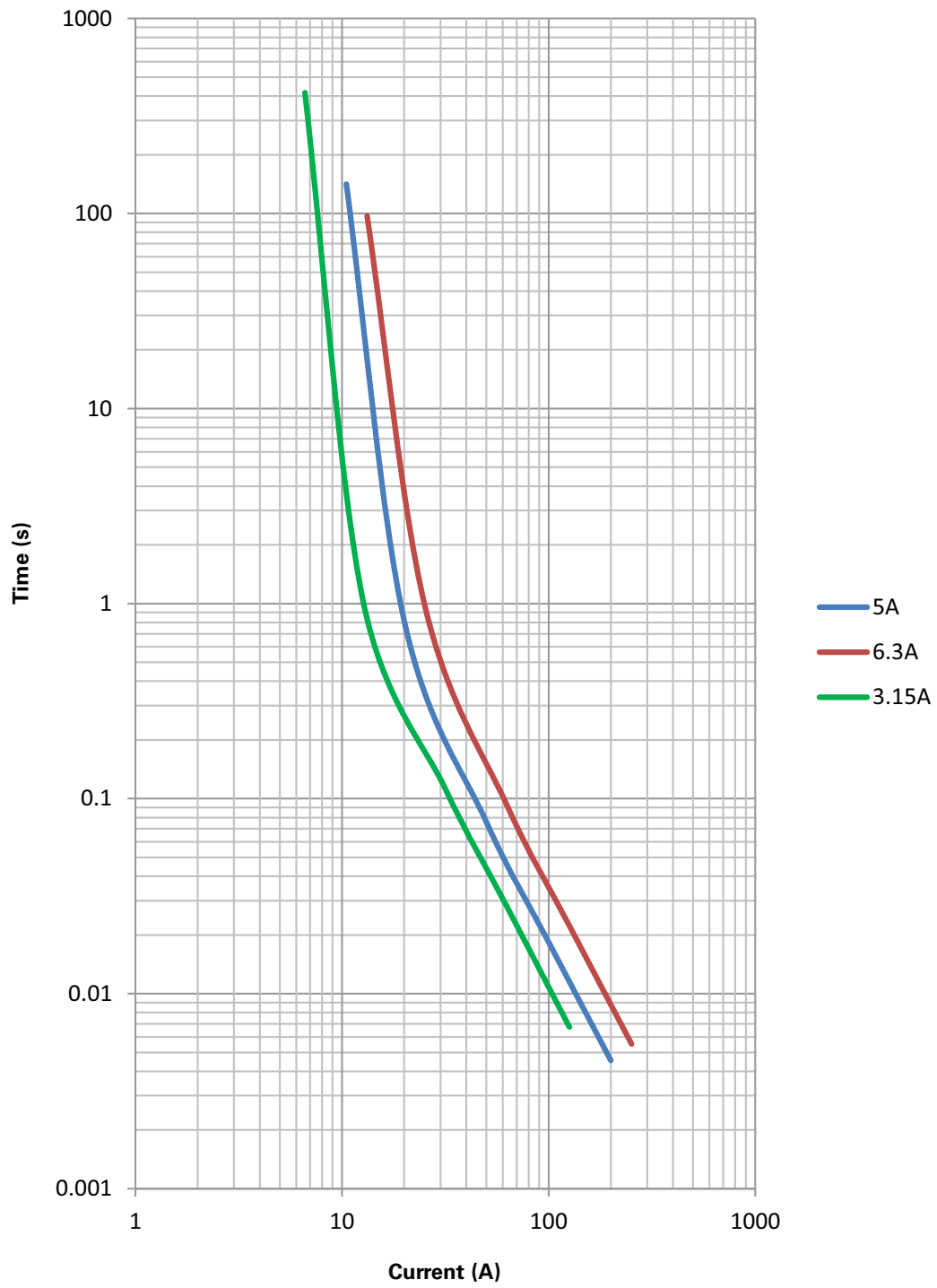
Dimensions—mm

A

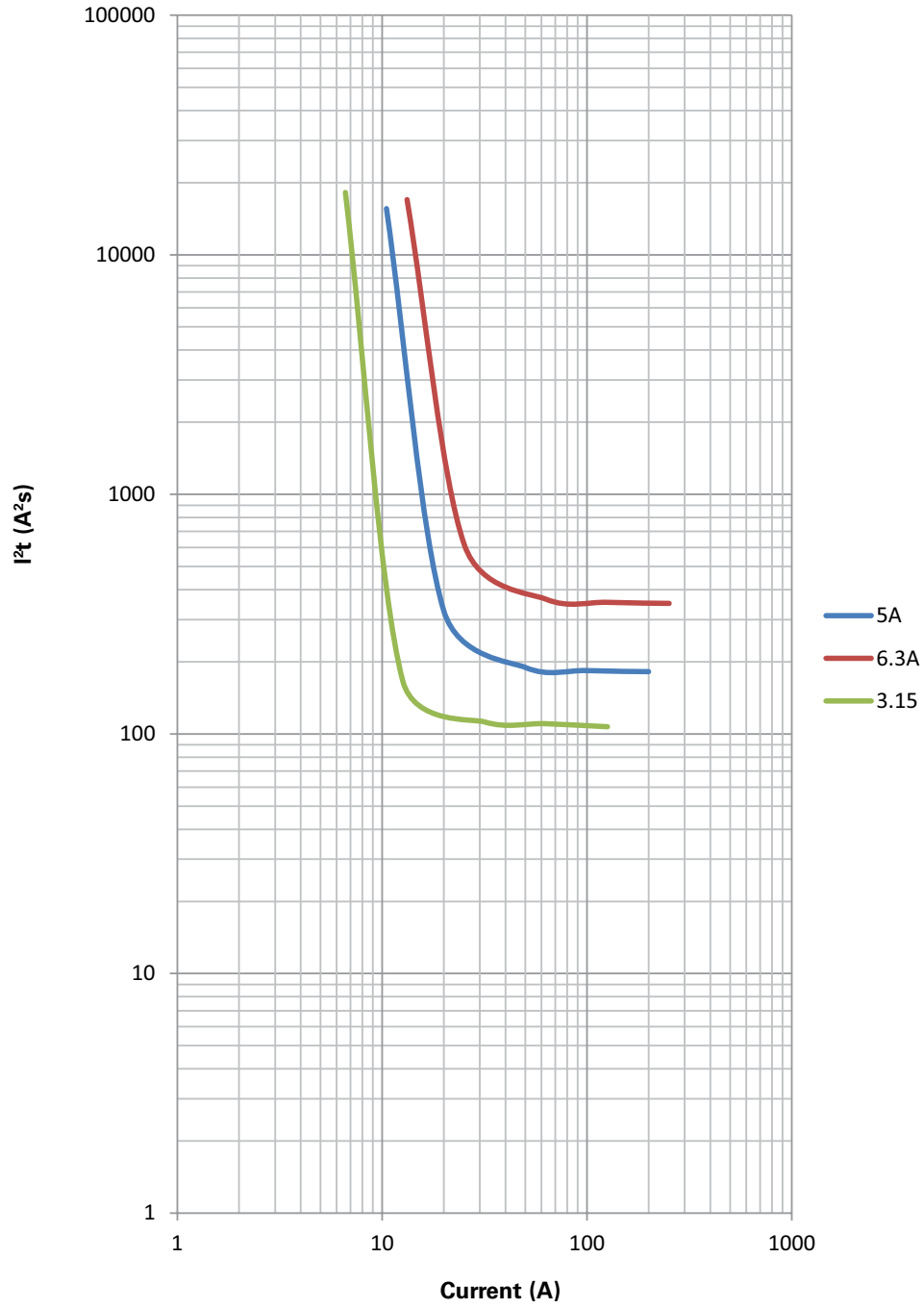
BK: 38.1±0.38
TR2: 15.75 typ
TR3: 16.75 typ



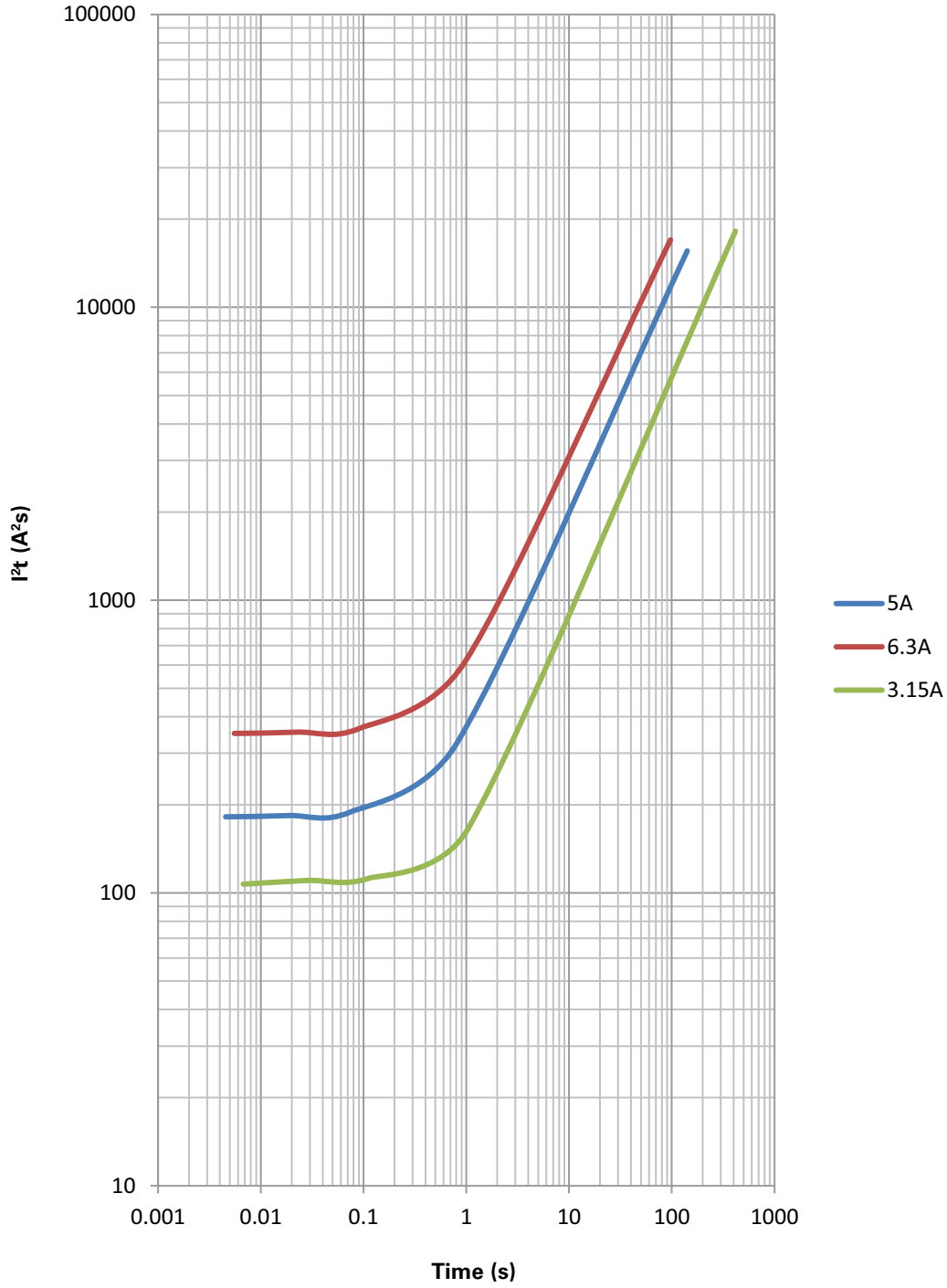
Time vs. current curve



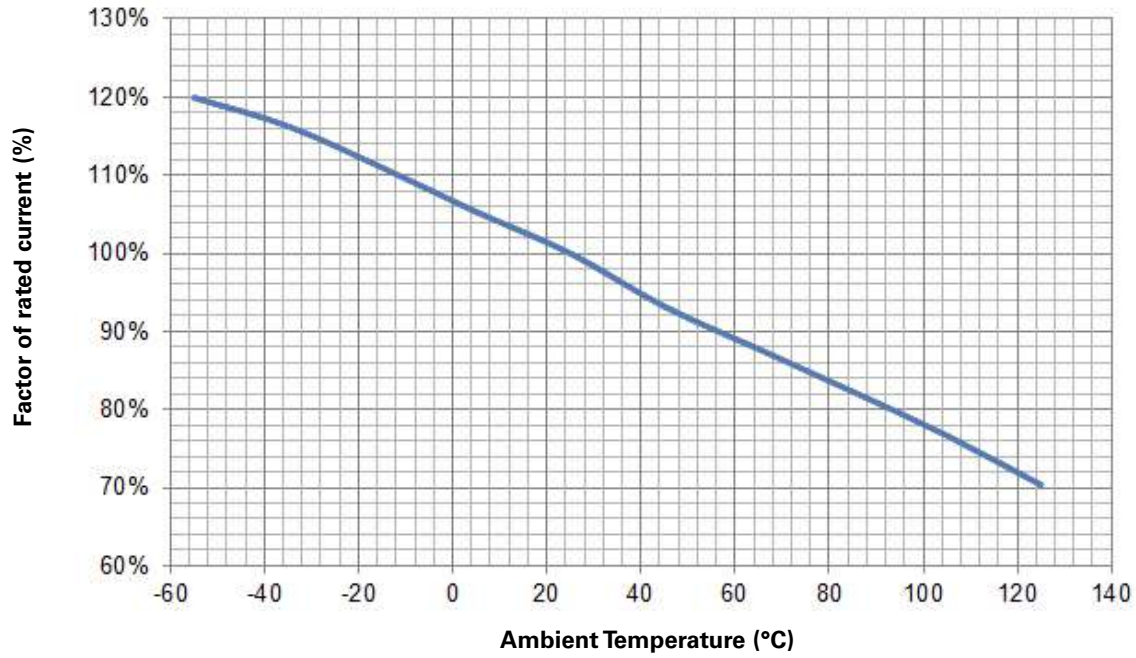
I²t vs. current curve



I²t vs. time curve



Temperature derating curve



General specifications

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

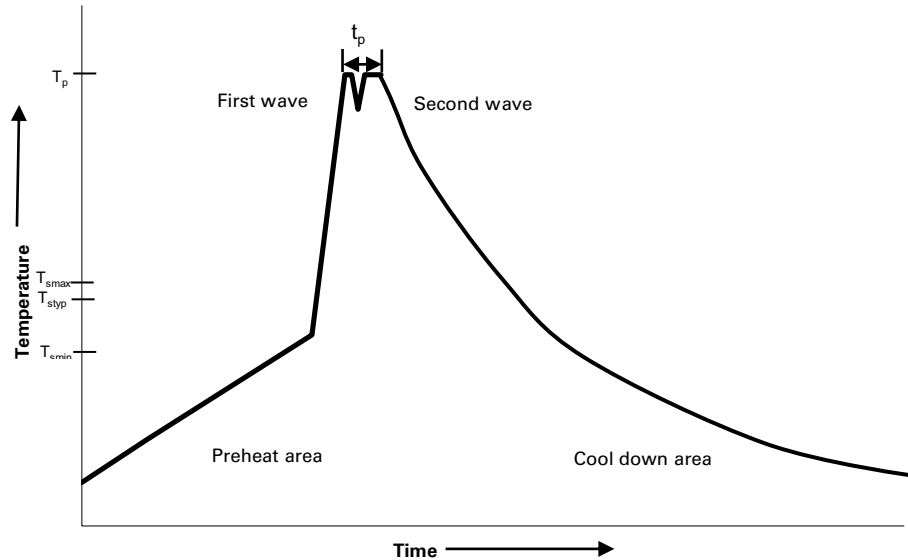
Thermal shock: MIL-STD- 202G, Method 107G, test condition B (5 cycles -65 °C to +125 °C)

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

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

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

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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