

S505SC

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



Product features

- Time-delay, high breaking capacity
- Designed to IEC 60127-2
- 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
- SEMKO: File 1219335, 1310139
- VDE: File 40024252, 40037710 (1 A - 8 A)
- BSI: File KM55676
- IMQ: File CA03.00529
- PSE/JET: JET1641-31003-1010, JET1641-31003-2002, JET7042-31003-2001
- CCC: 2019010207252180
- KC-Mark: File SU05011-12003, SU05011-12004, SU05011-12005A; SU05030-13003A, SU05030-13004, SU05030-13005
- TUV: J50233218

Ordering

- The ordering code is the part number replacing the " " with a "-" plus adding the packaging prefix (i.e. S505SC-1.25-R; BK-S505SC1-25-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
1 A-3.15 A	60	30	750	80	95	5	10	150
4 A-6.3 A	60	30	750	80	150	5	10	150
8 A-10 A	30	30	750	80	150	5	10	150

Product specifications

Part number ⁵	Current rating (A)	Voltage rating (Vac)	Interrupting rating at rated voltage (50 Hz) (A)	Typical DC cold resistance (Ω) ²	Typical pre-arcing I^2t (A^2s) ³	Typical voltage drop (mV) ⁴	IMQ	VDE	SEMKO	cURus	PSE/JET	CCC	KC	BSI	TUV
S505SC-1-R	1.0	250	1500	0.169	1.38	180	x	x	x	x	x	x	x	x	x
S505SC-1.25-R	1.25	250	1500	0.108	2.14	151	x	x	x	x	x	x	x	x	x
S505SC-1.6-R	1.6	250	1500	0.070	7.35	130	x	x	x	x	x	x	x	x	x
S505SC-2-R	2.0	250	1500	0.055	9.83	123.5	x	x	x	x	x	x	x	x	x
S505SC-2.5-R	2.5	250	1500	0.040	19.9	119	x	x	x	x	x	x	x	x	x
S505SC-3.15-R	3.15	250	1500	0.031	40.4	110	x	x	x	x	x	x	x	x	x
S505SC-4-R	4.0	250	1500	0.018	41.0	89.8	x	x	x	x	x	x	x	x	x
S505SC-5-R	5.0	250	1500	0.013	71.2	88	x	x	x	x	x	x	x	x	x
S505SC-6.3-R	6.3	250	1500	0.010	152	72.5	x	x	x	x	x	x	x	x	x
S505SC-8-R	8.0	250	1500	0.007	237	82.5	x	x	x	x	x	x	x	x	x
S505SC-10-R	10	250	1500	0.005	353	70	x		x	x	x	x	x	x	x

1 Interrupting ratings 1 A to 10 A were measured at 70% to 80% PF on AC.

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

3. Typical I^2t 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: S505SC-xxx-R

S505 = Product code

SC = Single cap

xxx = Ampere rating

-R = RoHS compliant

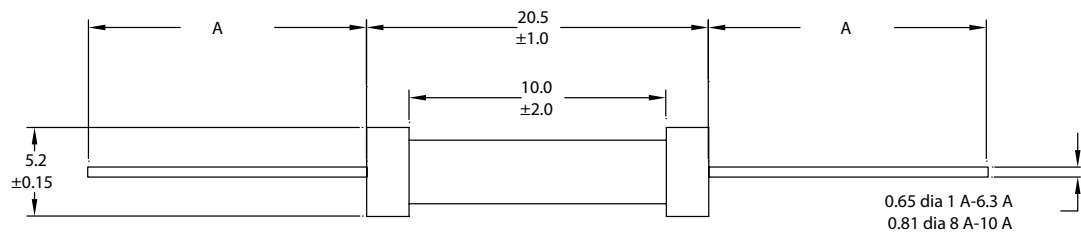
Dimensions—mm

A

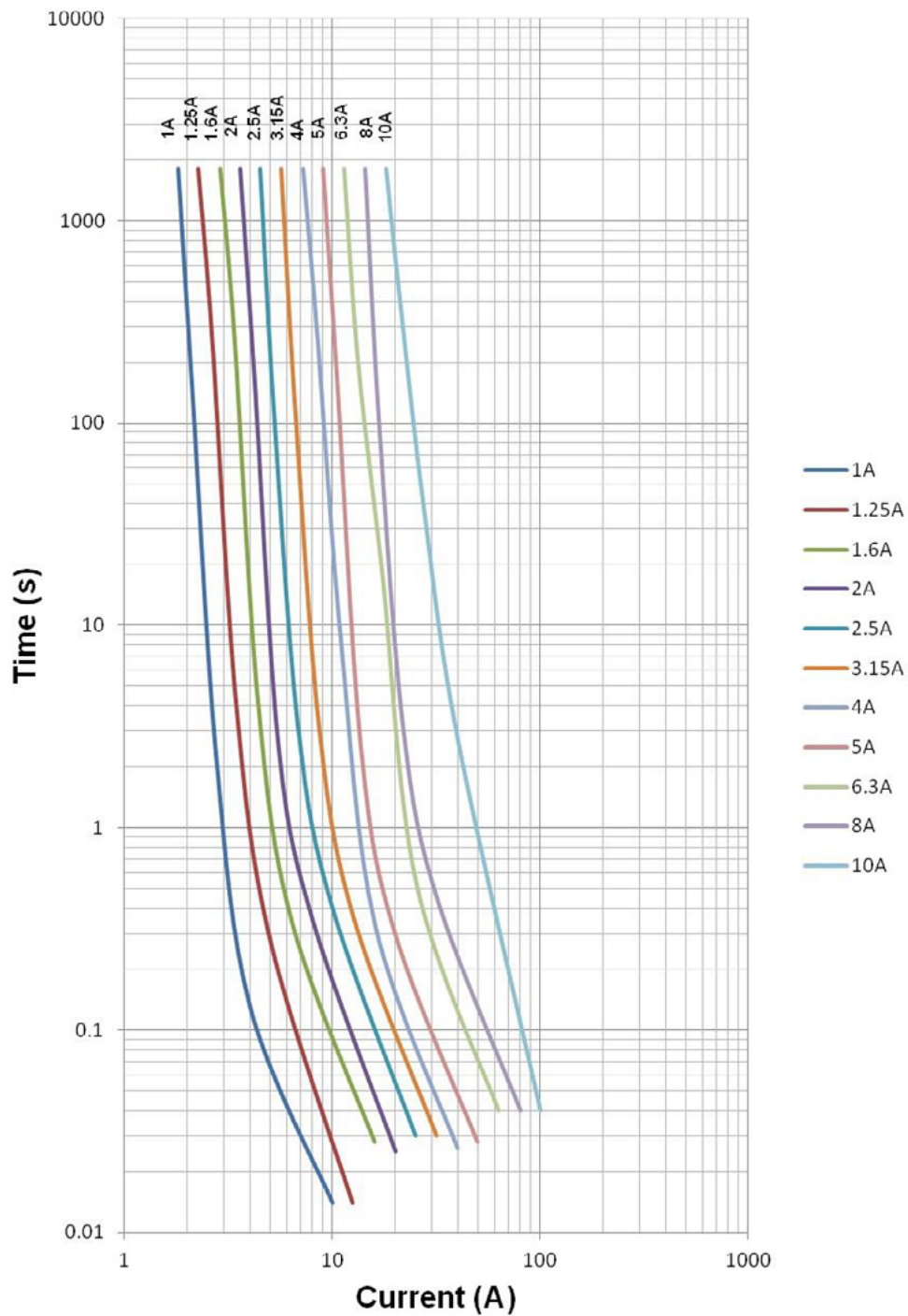
BK: 38.1±0.38

TR2: 15.75 typ

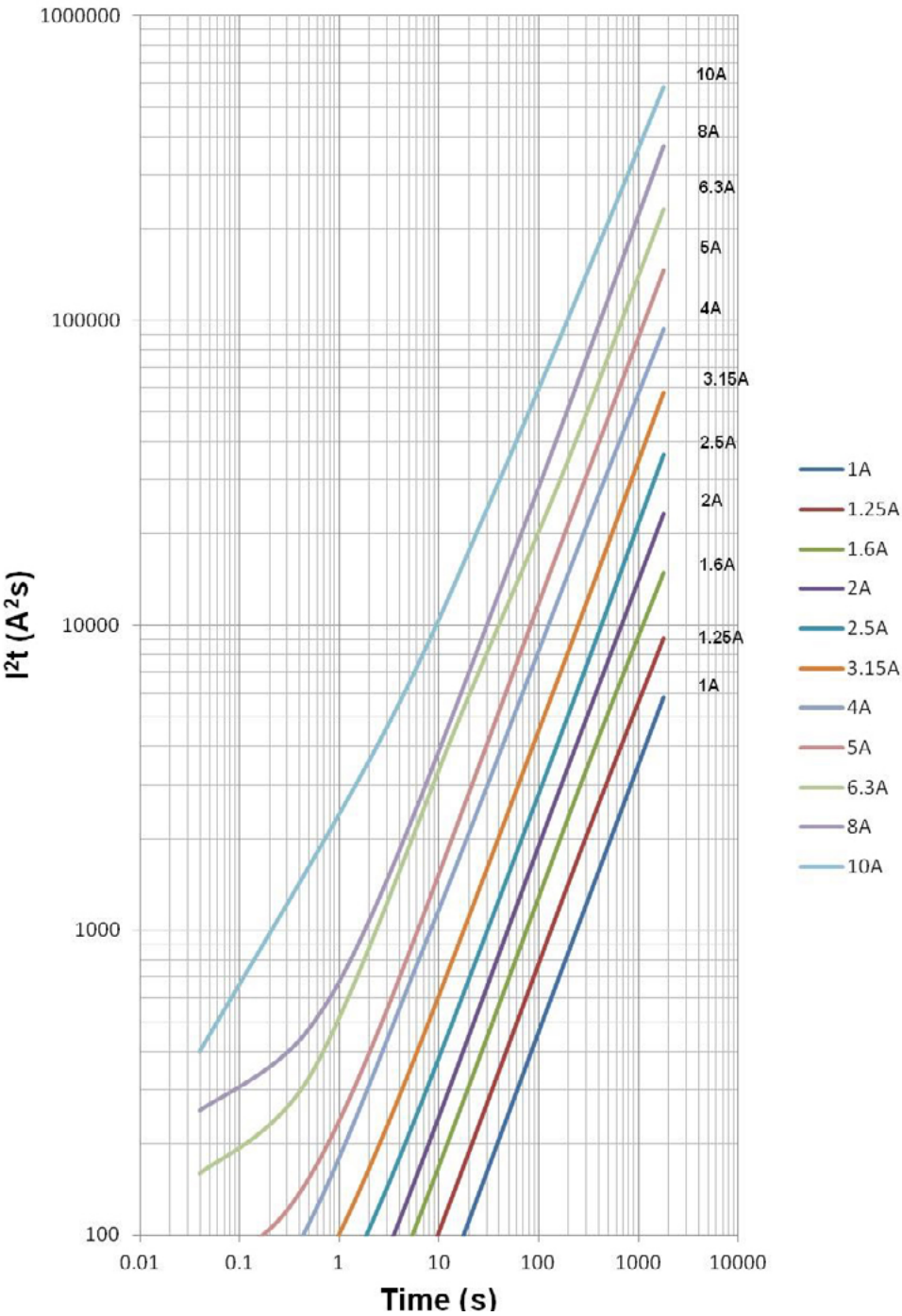
TR3: 16.75 typ



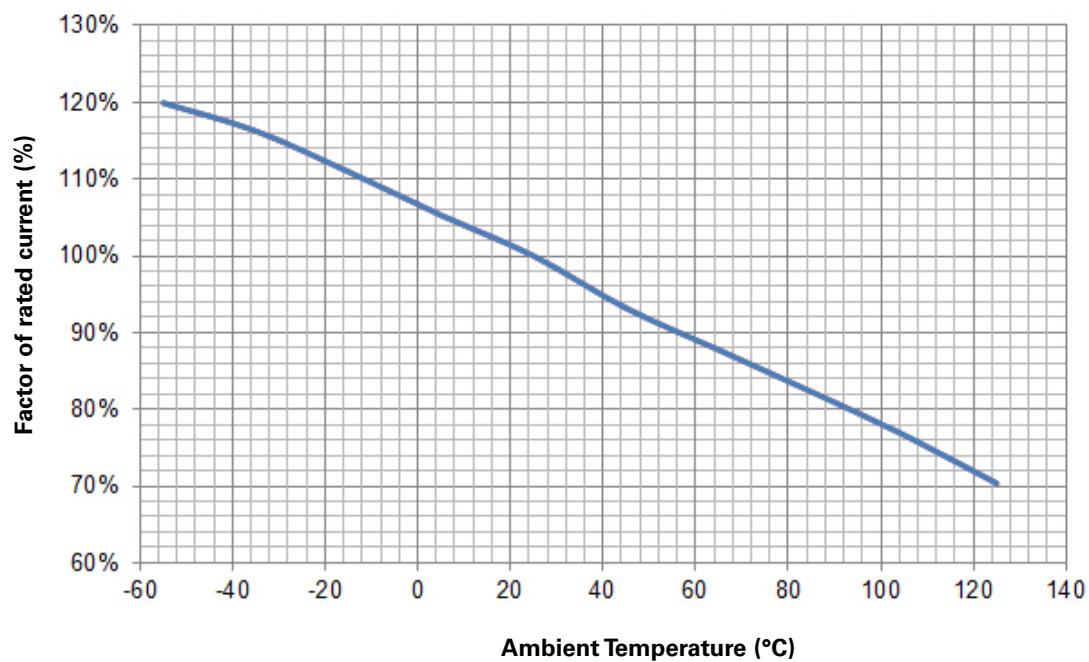
Time vs. current curve



I²t vs. time curve



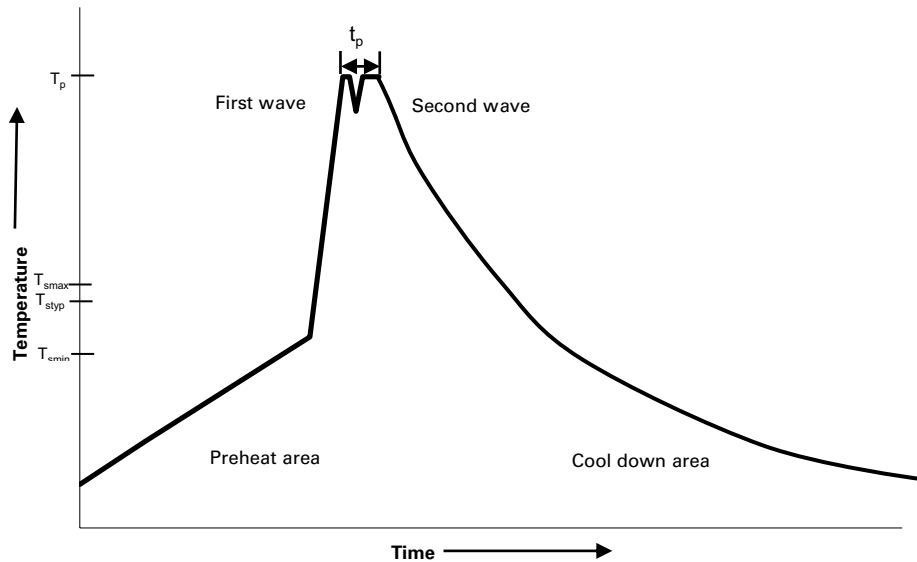
Temperature derating curve



General specifications

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

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.

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

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

© 2019 Eaton
All Rights Reserved
Printed in USA
Publication No. 10132 PCN19017M
December 2019

Eaton is a registered trademark.

All other trademarks are property
of their respective owners.

Follow us on social media to get the
latest product and support information.

