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 self declaration: 2020970207000210
- 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

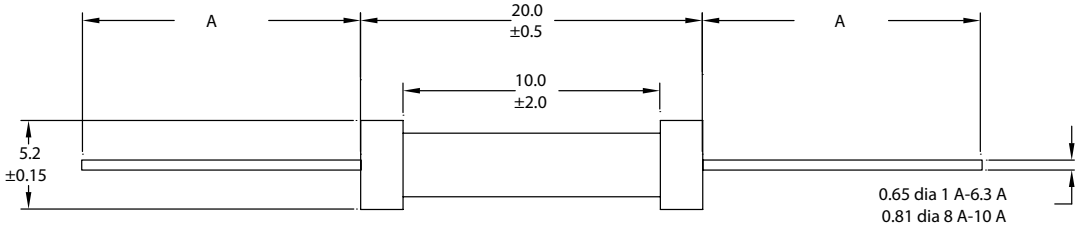
Product specifications

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

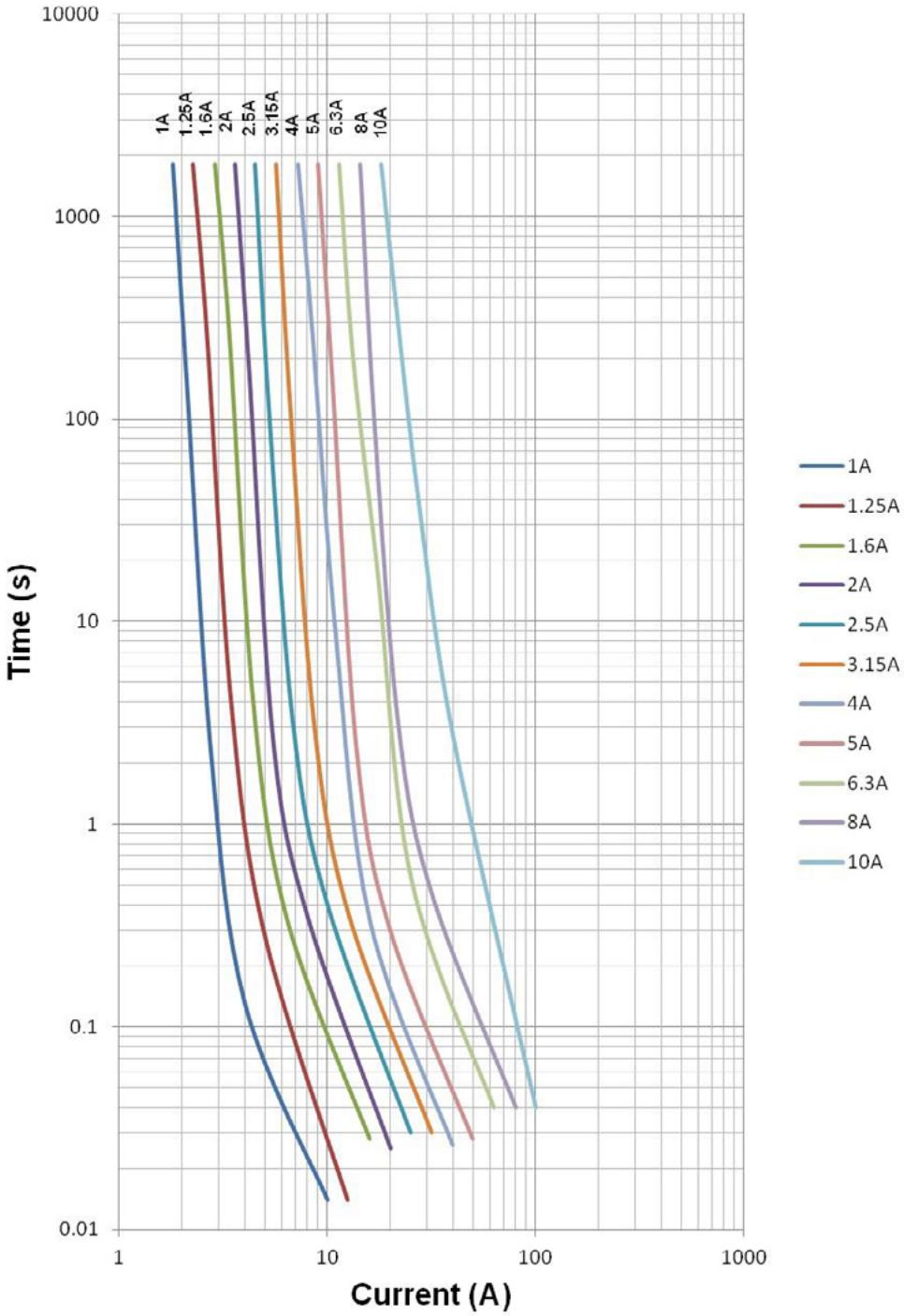
1 Interrupting ratings 1 A to 10 A were measured at 70% to 80% PF on AC.
2 Typical DC cold resistance measured at <10% of rated current .
3. Typical I^2t value is measured at 10 times the rated current under DC.
4. Typical voltage drop is measured at +20 °C ambient temperature at rated current .
5. Part number definition: S505SC-xxx-R
S505 = Product code
SC = Single cap
xxx = Ampere rating
-R = RoHS compliant

Dimensions–mm

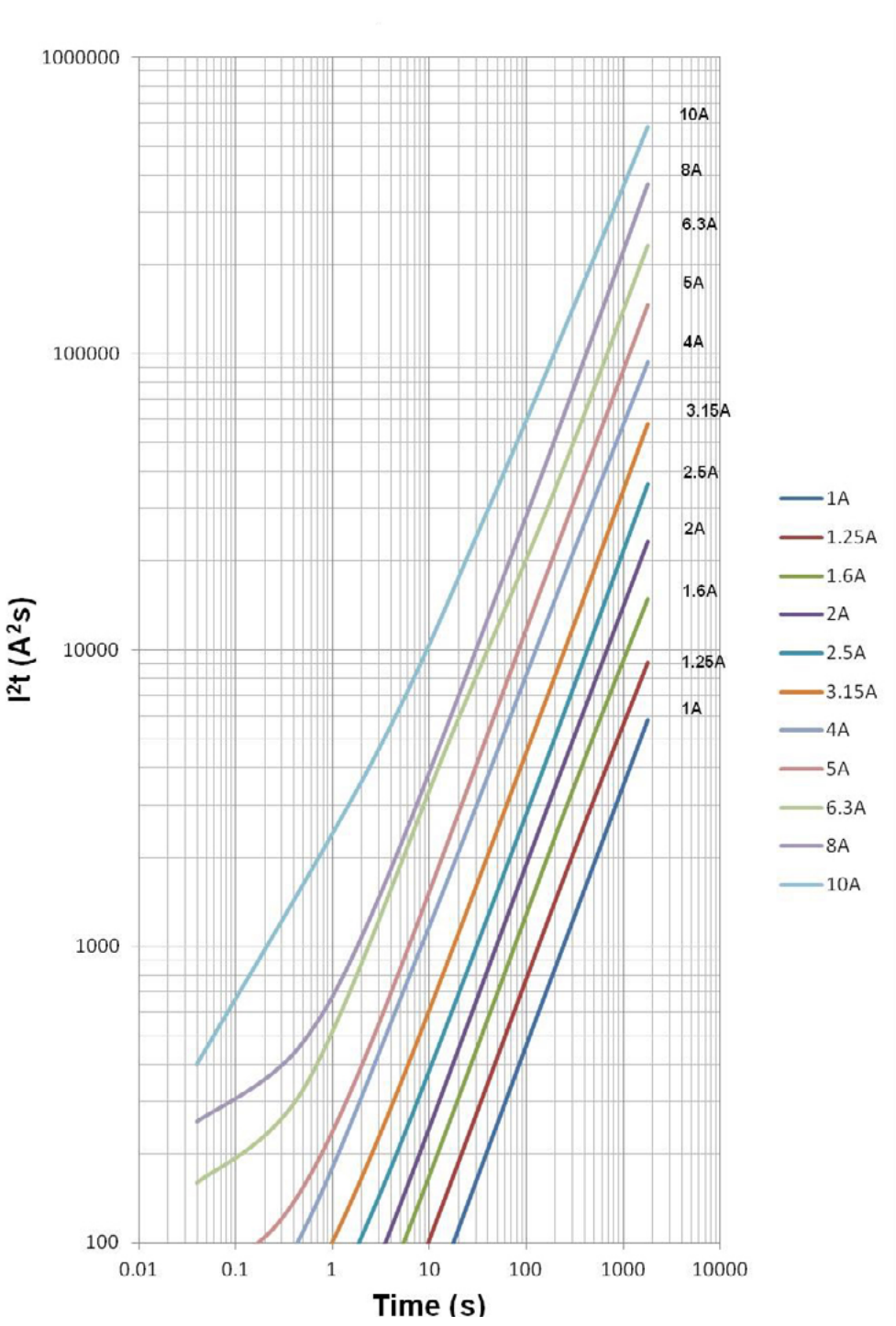
A
BK: 38.1±0.38
TR2: 15.75 typ
TR3: 16.75 typ



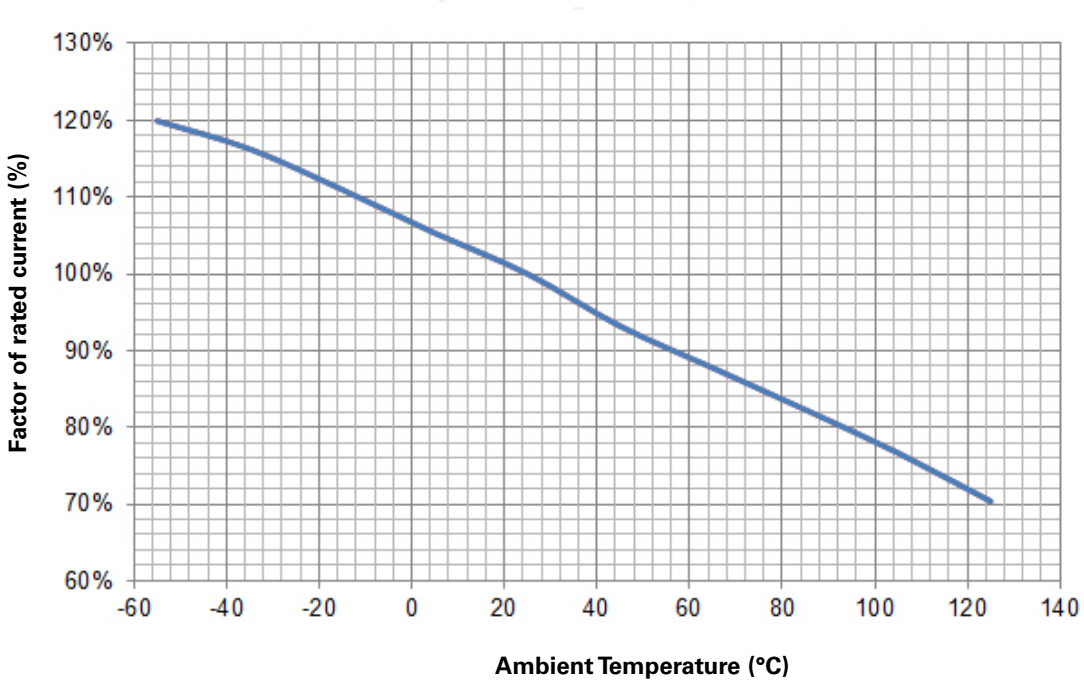
Time vs. current curve



I^2t vs. time curve



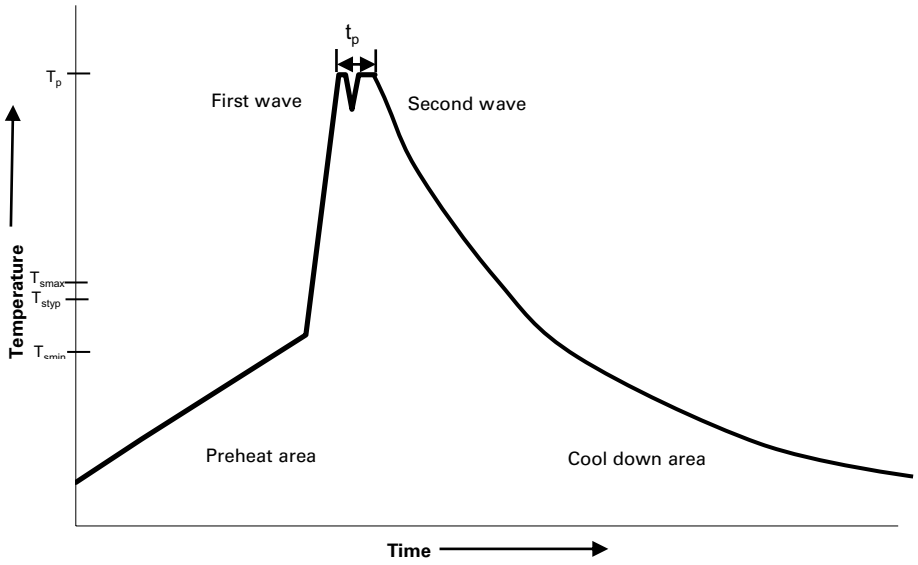
Temperature derating curve



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.

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