

S506

5 mm x 20 mm Time-delay glass tube fuses



Photo is representative

Product features

- Time-delay, low breaking capacity
- Optional axial lead option available
- 5 mm x 20 mm physical size
- Glass tube with nickel-plated brass endcaps
- Designed to IEC 60127-1 & 2

Ordering part number

BK-S506-V-1-R

Packaging code

Family name

Option code

Ampere rating

RoHS compliant

The ordering code is the part number replacing the " " with a "-"

Packaging prefix

- **BLANK:** 5 pieces in tin case (Cartridge only)
- **BK-:** 100 pieces in carton.
- **BK1-:** 1,000 pieces in polybag.
- **TR2-:** 1,500 pieces on reel (Axial lead only)

Option code

- **-V:** Axial leads – cooper tinned wire with nickel plated brass over caps

Applications

- Power supplies
- LED and general Lighting
- LED/LCD televisions
- Appliances and white goods
- Desktops
- Test equipment
- Set top boxes
- Battery chargers
- Printers and peripherals

Environmental compliance



- Halogen free for values above 160 mA

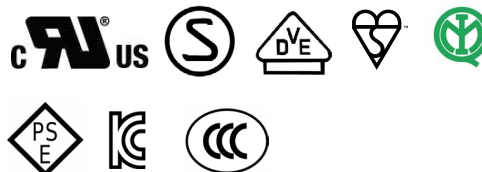
Agency information

- cURus recognized: File E19180, Guide JDYX2 (32 mA - 15 A) for both -V and non -V, JDYX8 (500 mA - 15 A) for both -V and non -V
- SEMKO File number: 1518843 (32 mA - 400 mA), 1410180 (500 mA - 10 A) for both -V and non -V.
- VDE Approval: File 40011926 (32 mA - 10 A) for non -V, (500 mA - 10 A) for -V
- BSI Approval: File KM55676 (32 mA - 10 A) for non -V, (500 mA - 10 A) for -V
- IMQ Approval: File E1921 (32 mA - 10 A) for non -V
- PSE File number: JET1641-31003-1019 (1 A - 5 A) for non -V, JET1641-31003-1020 (6.3 A - 15 A) for non -V, JET1641-31003-1021 (1 A - 5 A) for -V, JET1641-31003-1022 (6.3 A - 15 A) for -V
- KC File number: SU05011-6001B (32 mA - 100 mA) for non -V, SU05011-6002B (8 A - 10 A) for non -V, SU05011-5005B (125 mA - 800 mA) for both -V and non -V, SU05011-5006B (1 A - 2.5 A) for both -V and non -V, SU05011-5007B (3.15 A - 6.3 A) for both -V and non -V.
- CCC file number: 2020970207000244: (32 mA - 6.3 A) for both -V and non -V

Note: Philippines manufactured parts have cURus and Semko approvals only



Powering Business Worldwide



Electrical characteristics

Amp rating	2.1 In max	2.75 In min	max	4.0 In min	max	10 In min	max
32 mA - 100 mA	2.0 minutes	200 ms	10 s	40 ms	3.0 s	10 ms	300 ms
125 mA - 6.3 A	2.0 minutes	600 ms	10 s	150 ms	3.0 s	20 ms	300 ms
8 A - 15 A	2.0 minutes	600 ms	10 s	150 ms	3.0 s	20 ms	300 ms

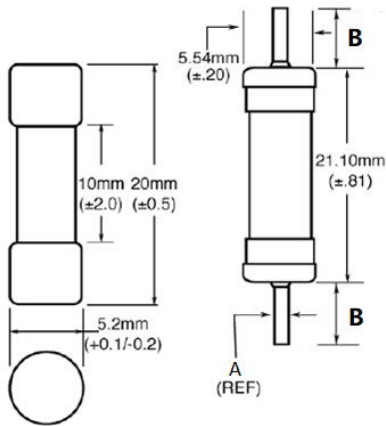
Product specifications

Part number	Current rating (A)	Voltage rating (Vac)	Interrupting rating (A) at rated voltage (50 Hz) Vac	Typical DC cold resistance ¹ (Ohms)	Typical melting I ² t (A ² sec)	Typical voltage drop ² (mV)	cURus ³	Agency approval						
								SEMKO	VDE ⁴	BSI ⁵	IMQ ⁶	PSE	KC ⁷	CCC
S506-32-R	0.032	250	35	21	0.0051	1050	X	X	X	X	X		X	X
S506-40-R	0.04	250	35	13.9	0.0072	920	X	X	X	X	X		X	X
S506-50-R	0.05	250	35	9.24	0.0095	800	X	X	X	X	X		X	X
S506-63-R	0.063	250	35	6.96	0.021	760	X	X	X	X	X		X	X
S506-80-R	0.08	250	35	4.42	0.038	580	X	X	X	X	X		X	X
S506-100-R	0.10	250	35	2.8	0.045	490	X	X	X	X	X		X	X
S506-125-R	0.125	250	35	1.97	0.063	390	X	X	X	X	X		X	X
S506-160-R	0.16	250	35	1.27	0.093	320	X	X	X	X	X		X	X
S506-200-R	0.20	250	35	1.0	0.114	340	X	X	X	X	X		X	X
S506-250-R	0.25	250	35	0.64	0.265	270	X	X	X	X	X		X	X
S506-315-R	0.315	250	35	0.45	0.621	250	X	X	X	X	X		X	X
S506-400-R	0.40	250	35	0.31	0.872	210	X	X	X	X	X		X	X
S506-500-R	0.50	250	35	0.183	0.827	140	X	X	X	X	X		X	X
S506-630-R	0.63	250	35	0.186	1.33	150	X	X	X	X	X		X	X
S506-800-R	0.80	250	35	0.129	2.78	75	X	X	X	X	X		X	X
S506-1-R	1.0	250	35	0.0757	6.45	87.5	X	X	X	X	X	X	X	X
S506-1.25-R	1.25	250	35	0.059	10.05	86	X	X	X	X	X	X	X	X
S506-1.6-R	1.6	250	35	0.042	21.7	82	X	X	X	X	X	X	X	X
S506-2-R	2.0	250	35	0.03325	31.6	77	X	X	X	X	X	X	X	X
S506-2.5-R	2.5	250	35	0.0255	59.4	72.5	X	X	X	X	X	X	X	X
S506-3.15-R	3.15	250	35	0.0185	96.4	68.5	X	X	X	X	X	X	X	X
S506-4-R	4.0	250	40	0.0139	71.8	67	X	X	X	X	X	X	X	X
S506-5-R	5.0	250	50	0.00985	142.5	60.5	X	X	X	X	X	X	X	X
S506-6.3-R	6.3	250	63	0.0073	237.6	54	X	X	X	X	X	X	X	X
S506-8-R	8.0	250	80	0.007	255.8	55	X	X	X	X		X	X	
S506-10-R	10	250	100	0.005	450	54	X	X	X	X		X	X	
S506-12.5-R	12.5	250	125	0.004	1019.5	45	X					X		
S506-15-R	15	250	150	0.004	1091.7	65.5	X					X		

1. DC cold resistance measured at <10% of rated current
2. Maximum voltage drop was measured at +20 °C ambient temperature at rated current
3. Canada (JDYX2) (500 mA - 15 A)
4. VDE --(32 mA - 10 A) for non -V, (500 mA - 10 A) for -V
5. BSI --(32 mA - 10 A) for non -V, (500 mA - 10 A) for -V
6. IMQ --(32 mA - 10 A) for non -V
7. KC- (32 mA - 100 mA) for non -V
(125 mA - 6.3 A) for non -V and -V
(8 A - 10 A) for non -V

Dimensions- mm

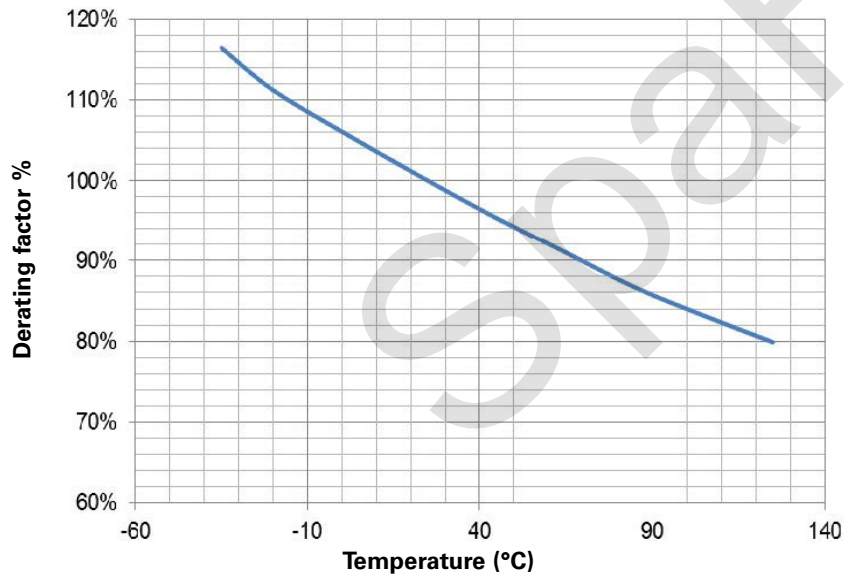
Drawing not to scale



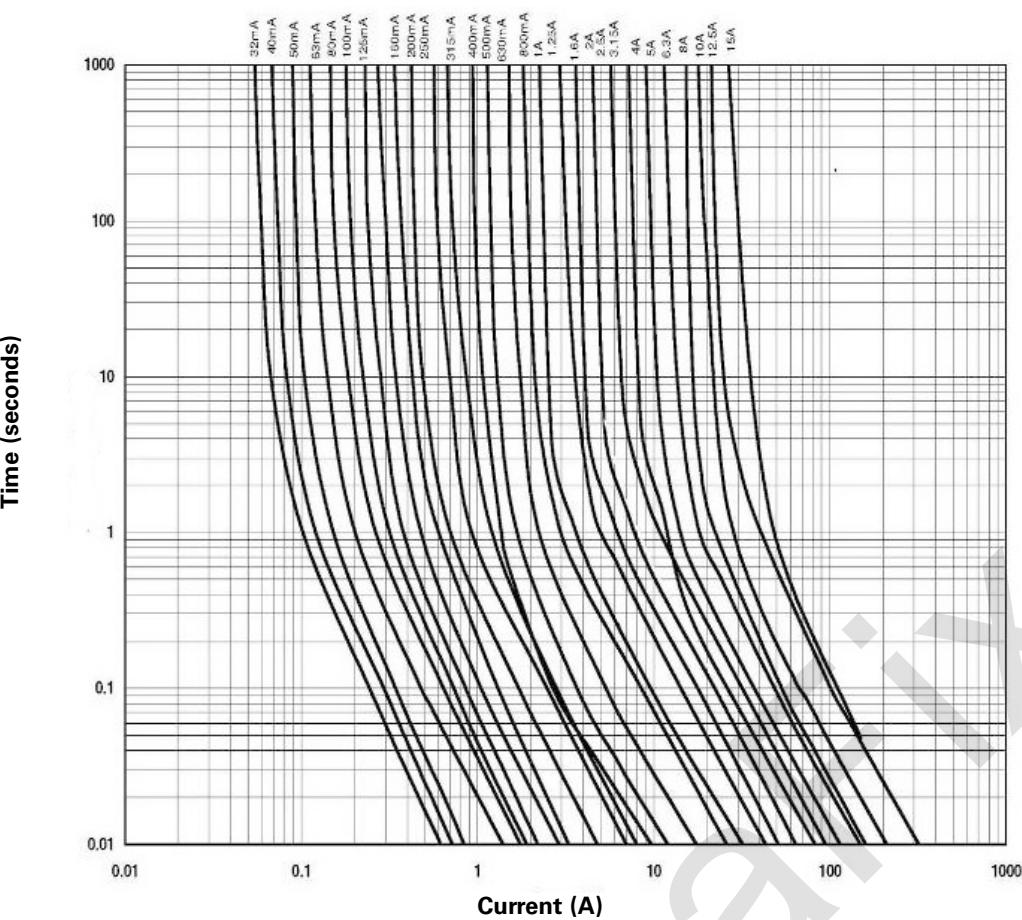
- Dimension A (ref): 0.65 mm (0.032 A - 4 A), 0.81 mm (5 A - 15 A)
- Dimension B: For BK- packaging code, 38.1 mm ±0.38 mm
For TR2- packaging code 15.8 mm ±2.0 mm

Temperature derating curve

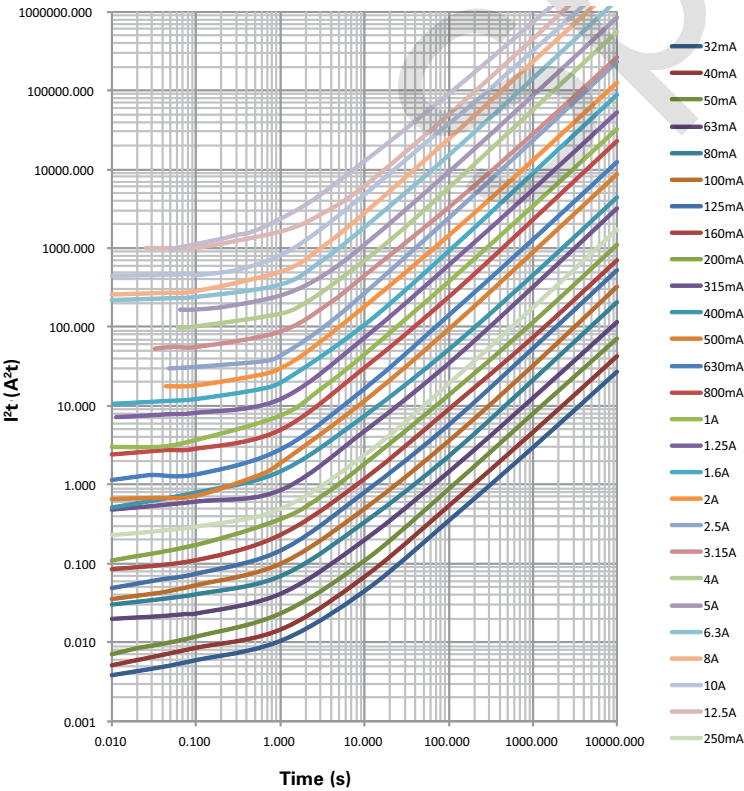
Operating temperature: -40 °C to +125 °C with proper correction factor applied



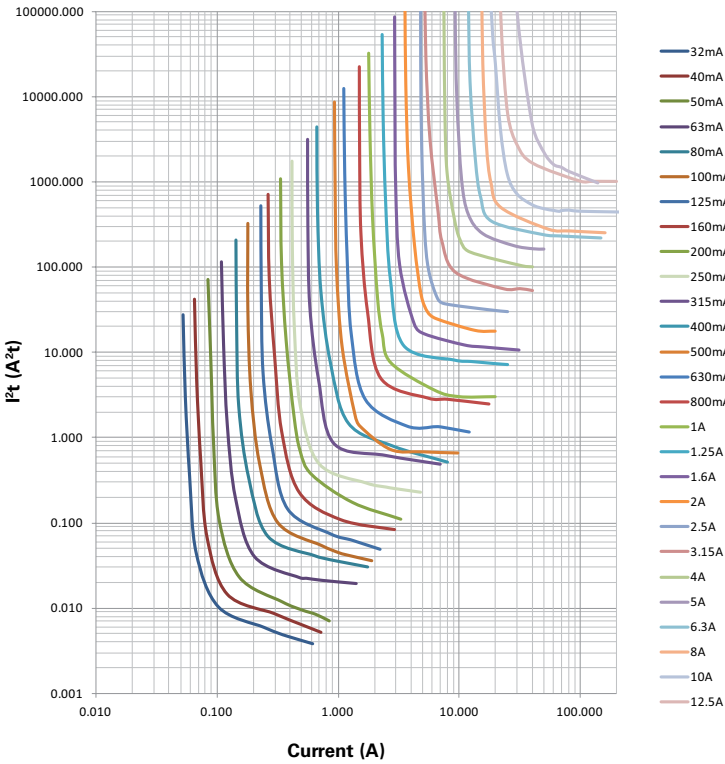
Time vs. current curve



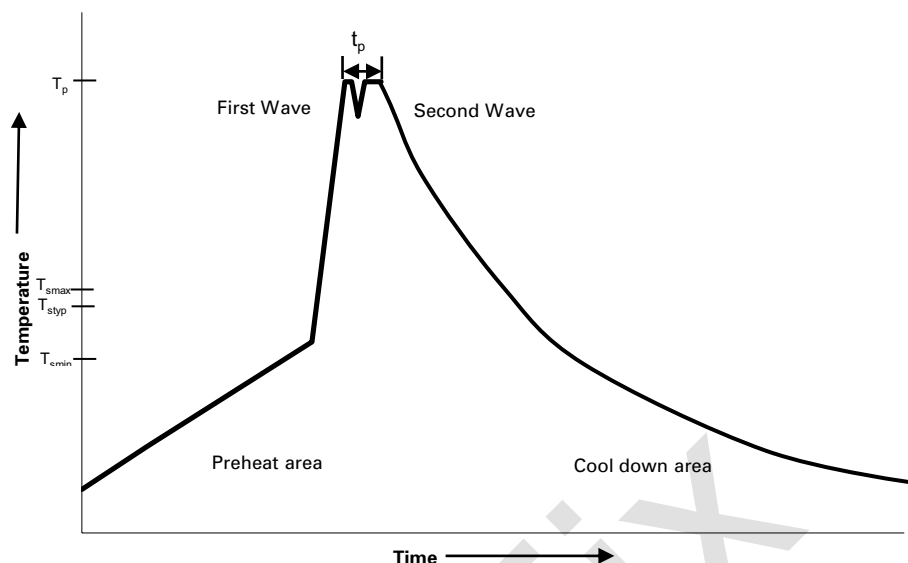
I^2t vs. time curve



I^2t vs. current curve



Wave solder profile (Axial lead only)



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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