

S506

5 mm x 20 mm Time-delay glass tube fuses

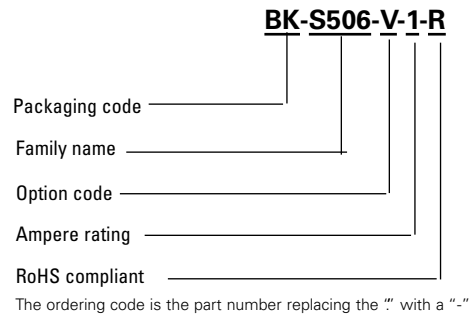


Photo is representative

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



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

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

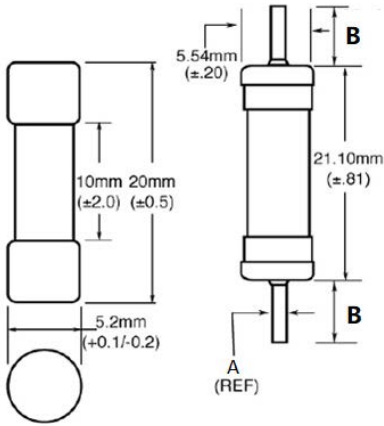
Product specifications

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)	Agency approval							
							cURus ³	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

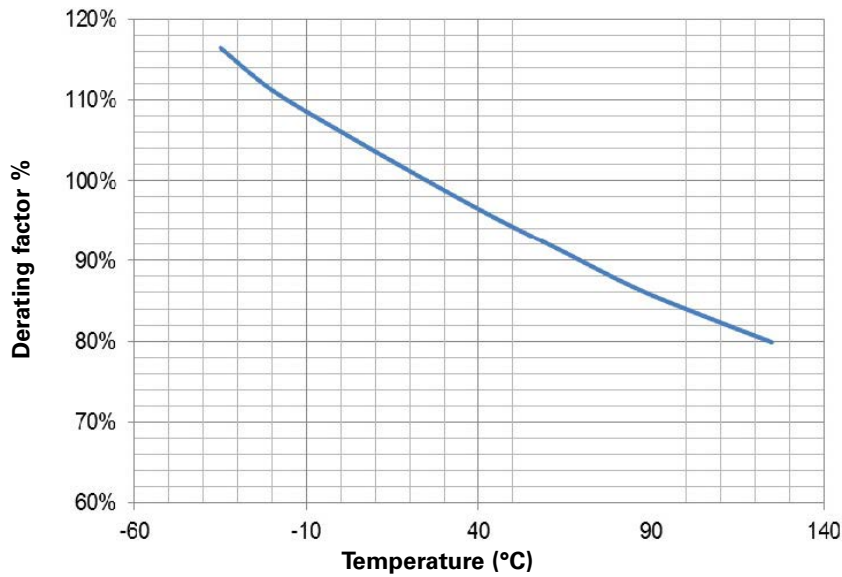
Drawing not to scale



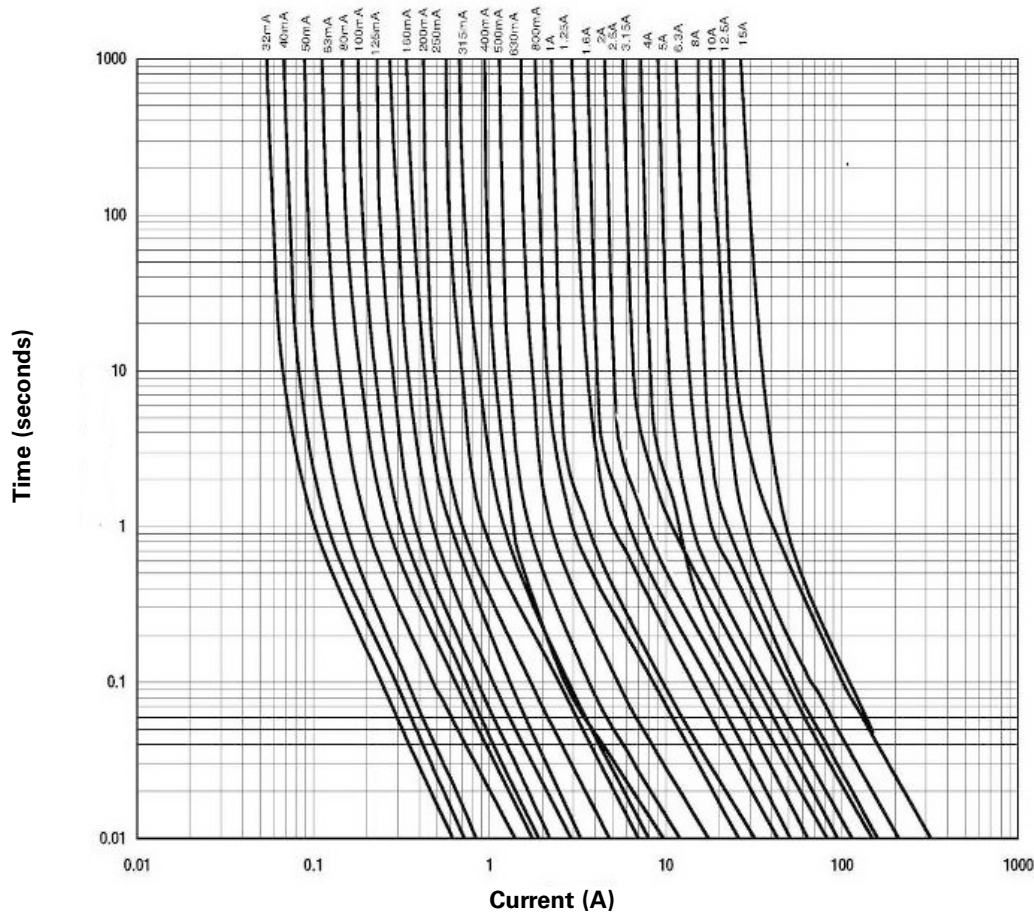
- Dimension A (ref): 0.65 mm (0.032 A - 4 A), 0.81 mm (5 A - 15 A)
- Dimension B: For BK- packaging code, 38.1 mm ±0.38 mm
For TR2- packaging code 15.8 mm ±2.0 mm

Temperature derating curve

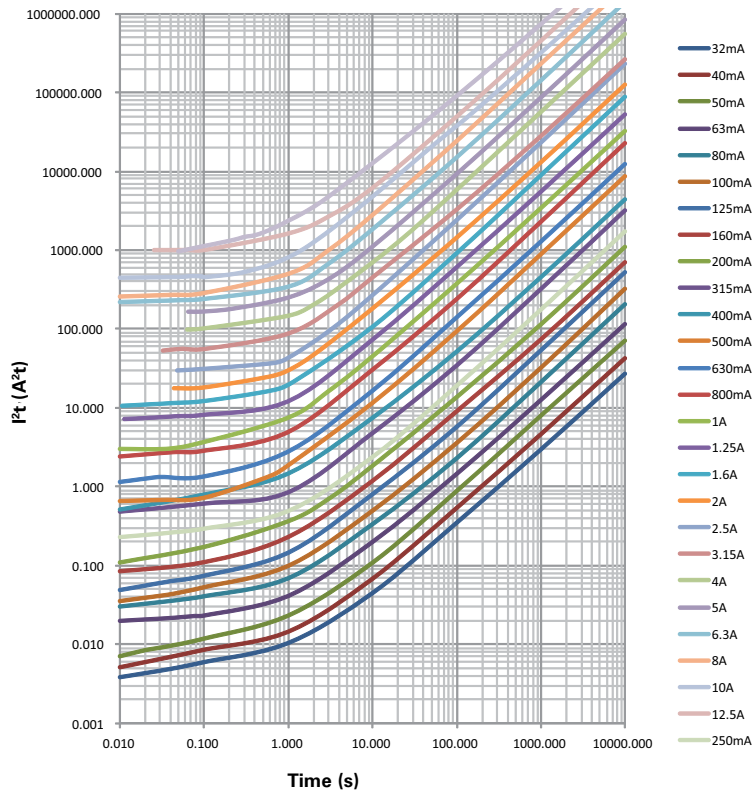
Operating temperature: -40 °C to +125 °C with proper correction factor applied



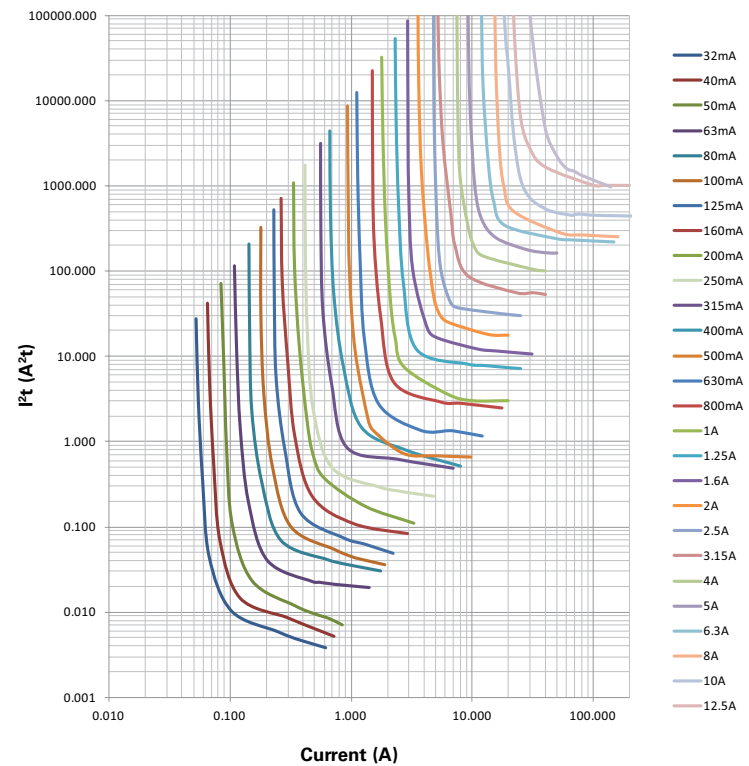
Time vs. current curve



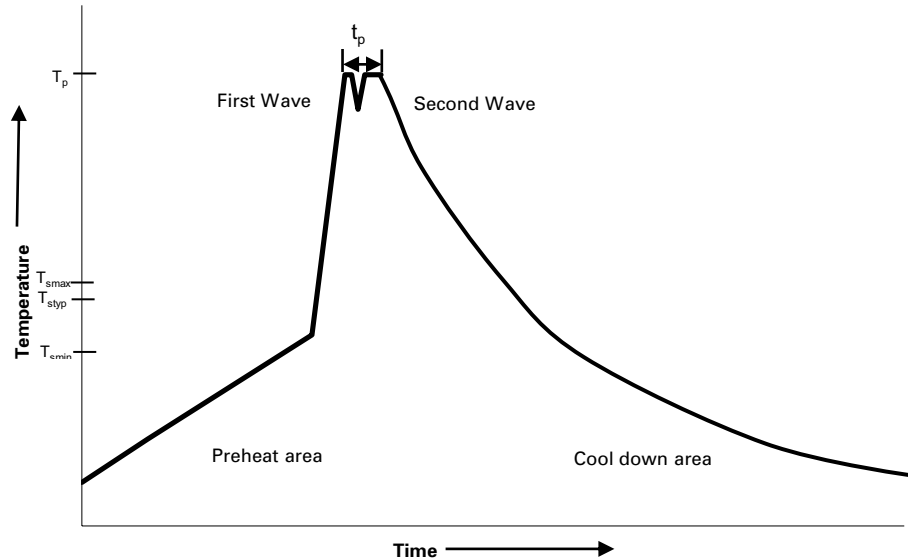
I^2t vs. time curve



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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