

SR-5

Subminiature time-delay fuses



Photo is representative

Product features

- Radial leaded time-delay thru-hole fuse
- Designed to IEC 60127-3, sheet 4
- Internationally accepted for primary and secondary overcurrent protection
- Place directly onto PCB or plug into [BK-PCS](#) holder
- High inrush withstand capability
- Compatible with leaded and lead-free reflow and wave solder

Agency information

- VDE: File: HA122052 (100 mA to 6.3 A)
- cURus: File E19180 Guide: JDYX8 JDYX2 (100 mA to 6.3 A)
- CCC: File: 2020970207000251 (100 mA to 6.3 A)
- PSE: JET1641-31007-1015 (1 A to 5 A)
JET1641-31007-1009 (6.3 A)
- SEMKO: File: 1412328 (100 mA to 6.3 A)
- KC: SU05011-9003B (100 mA)
SU05011-9004B (125 mA to 800 mA)
SU05011-9002B (1 A to 2.5 A)
SU05011-9001B (3.15 A to 6.3 A)



Applications

Primary and secondary circuit protection:

- Servers
- Appliances and white goods
- LED/LCD televisions and displays
- Heating, ventilation, and air conditioning (HVAC)
- Lighting ballasts
- LED lighting
- Set top boxes
- Power supplies

Environmental compliance



Ordering code

SR-5-1A-BK

Family name _____
Ampere rating _____
Packaging suffix _____

The ordering code is the part number replacing the “ ” with a “-” plus adding the packaging suffix (example: SR-5-1.25A to SR-5-1-25A)

Packaging suffix

-BK

200 pieces in polybag

-AP

Ammo Pack, Pitch=12.7 mm

Electrical characteristics

Rating	1.5 In		2.1 In		2.75 In		4 In		10 In	
	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum	minimum	maximum
100 mA to 4 A	60 minutes	2 minutes	400 ms	10 seconds	150 ms	3 seconds	20 ms	150 ms		
5 A to 6.3 A	60 minutes	2 minutes	400 ms	10 seconds	150 ms	3 seconds	20 ms	150 ms		

Product specifications

Part number	Current rating (A)	Voltage rating (Vac)	Interrupting rating @ rated voltage ¹ (A)	Typical DC cold resistance (Ω)	Typical voltage drop ³ (mV)	Typical pre-arcing ² I ² t (A ² sec)	Agency information					
							VDE	cURus	CCC	PSE	SEMKO	KC
SR-5-100mA	0.100	250	35	2.37	288.5	0.015155	x	x	x		x	x
SR-5-125mA	0.125	250	35	1.6	238	0.026783	x	x	x		x	x
SR-5-160mA	0.160	250	35	1.02	196.5	0.039097	x	x	x		x	x
SR-5-200mA	0.200	250	35	0.94	215.5	0.168832	x	x	x		x	x
SR-5-250mA	0.250	250	35	0.66	185	0.24778	x	x	x		x	x
SR-5-315mA	0.315	250	35	0.43	152	0.277201	x	x	x		x	x
SR-5-400mA	0.400	250	35	0.285	127	0.771618	x	x	x		x	x
SR-5-500mA	0.500	250	35	0.242	143.5	2	x	x	x		x	x
SR-5-630mA	0.630	250	35	0.154	113	3.5	x	x	x		x	x
SR-5-800mA	0.800	250	35	0.112	104.5	6.5	x	x	x		x	x
SR-5-1A	1.0	250	35	0.085	100	7.5	x	x	x	x	x	x
SR-5-1.25A	1.25	250	35	0.061	91	13	x	x	x	x	x	x
SR-5-1.6A	1.6	250	35	0.043	102	24	x	x	x	x	x	x
SR-5-2A	2.0	250	35	0.031	74.5	30	x	x	x	x	x	x
SR-5-2.5A	2.5	250	35	0.024	72.5	45	x	x	x	x	x	x
SR-5-3.15A	3.15	250	35	0.018	70.25	57	x	x	x	x	x	x
SR-5-4A	4.0	250	40	0.012	62	80	x	x	x	x	x	x
SR-5-5A	5.0	250	50	0.010	57.5	95.4	x	x	x	x	x	x
SR-5-6.3A	6.3	250	63	0.008	60.85	200	x	x	x	x	x	x

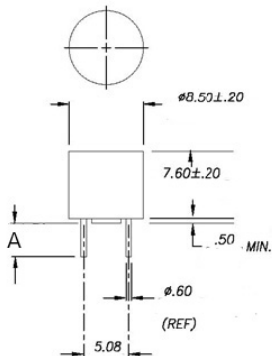
1. Interrupting ratings: 100 mA to 3.15 A were measured at 35 A, 95%-100% of PF on AC, 4 A, 5 A were measured at 10 times of rated current, 95%-100% of PF on AC.

2. Typical pre-arcing: SR-5-100mA to SR-5-400mA measured @ 100 In, SR-5-500mA to SR-5-6.3A measured @10 In

3. Typical voltage drop was measured at +20 °C ambient temperature at rated current

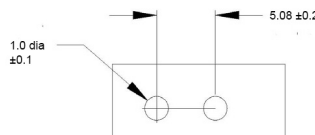
Dimensions- mm

Drawing not to scale



Dimension A	Length
SR-5-xxxA-BK	4.3 ± 0.3 mm
SR-5-xxxA-AP	9.15 ± 2 mm

Land pattern



General specifications

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

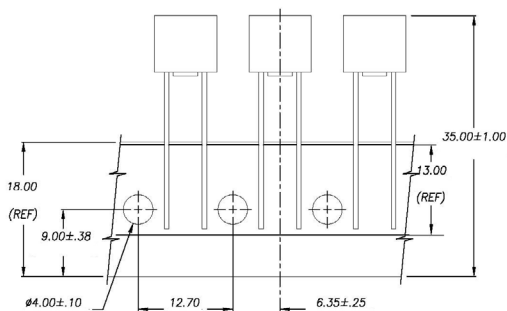
Solderability: EIA-186-9E, method 9

High frequency vibration: MIL-STD-202F, method 201A

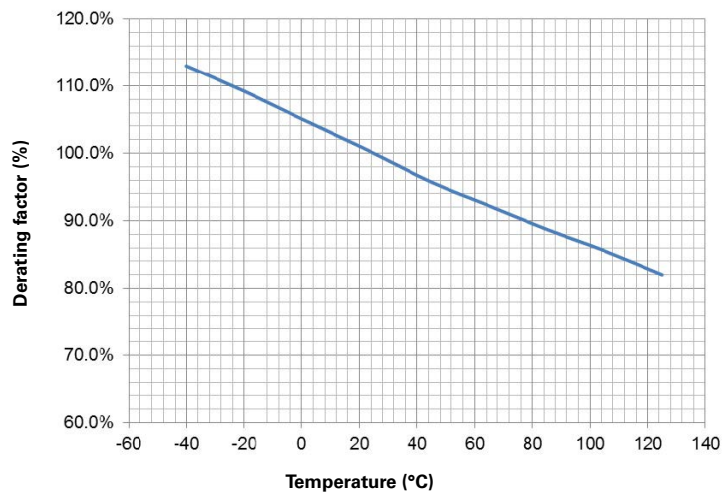
Packaging information

Packaging suffix	Description
-BK	Bulk, 200 pieces in polybag
-AP	Ammo Pack, Pitch=12.7 mm

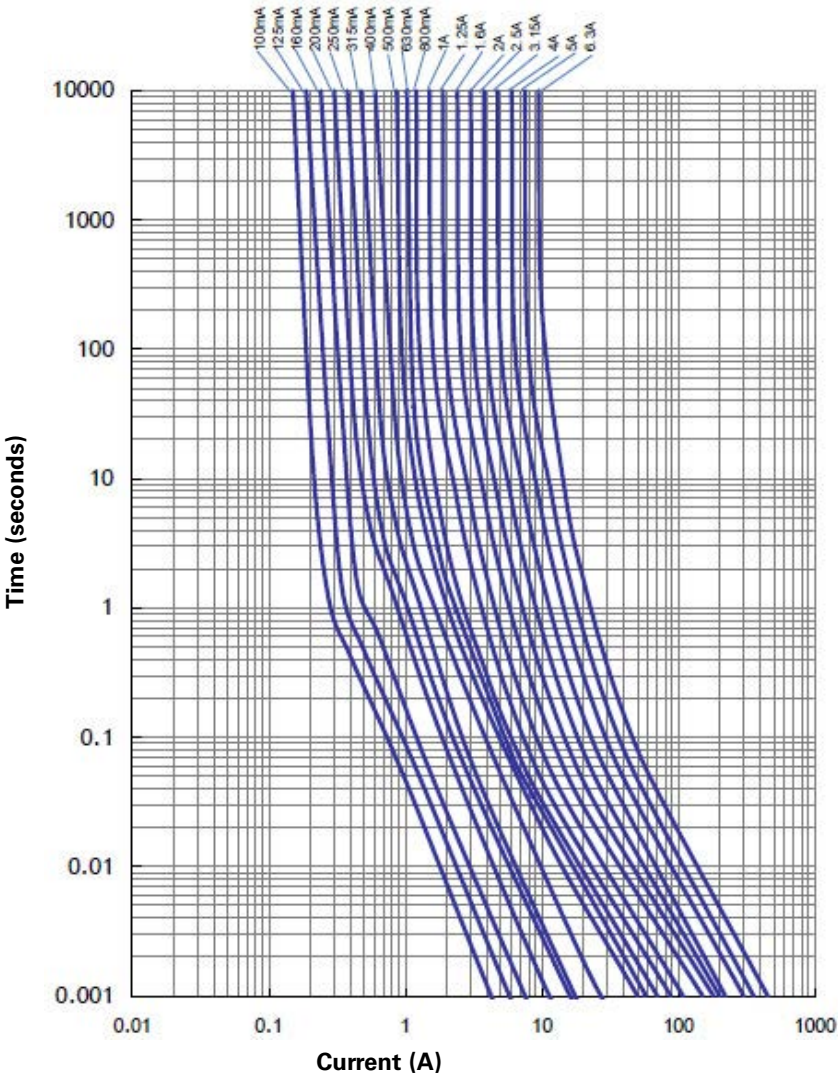
-AP (Ammo pack) (mm)



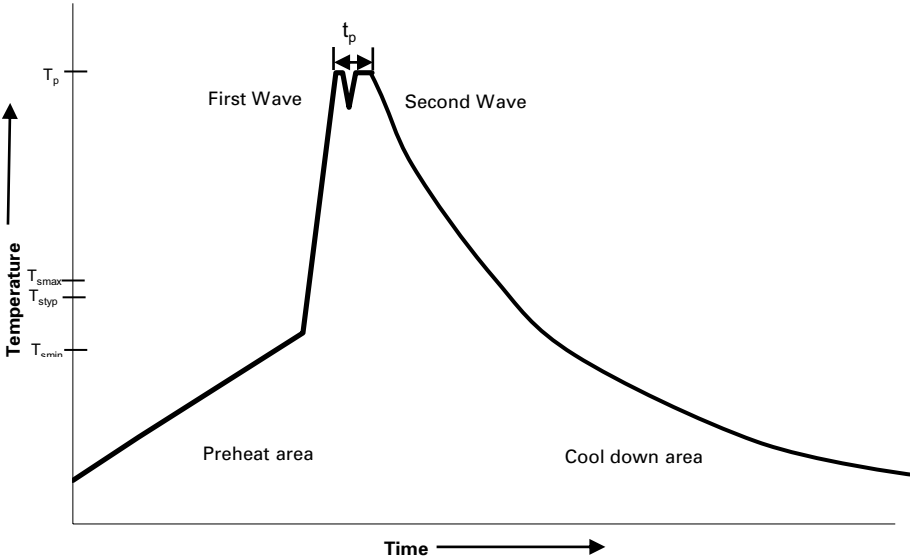
Temperature derating curve



Current vs time curve



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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