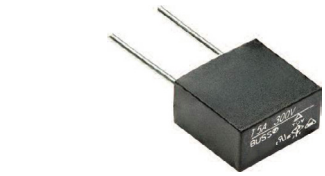
SS-5F

250 V Fast-acting subminiature fuse



Product description

- Fast-acting subminiature fuse
- Designed to UL 248-14
- Plastic cap and base, flammability UL 94V0
- 8.7 mm x 4.5 mm through hole package in a 8.05 mm height
- Protects against harmful overcurrents in primary and secondary applications
- Small radial-leaded design utilizes less board space
- Halogen free, lead free and RoHS compliant.

Applications

Primary and secondary circuit protection:

- Power supplies
- Notebooks and laptops
- Appliances and white goods
- Lighting ballasts
- Power adapters
- Set top boxes
- LED/LCD televisions and displays
- Air conditioners
- Battery chargers

Agency information

- cULus: Recognition file number E19180, Guide JDYX/JDYX7
- PSE: JET 1641-31007-1001, JET 1641- 31007-1002

Ordering

- Use ordering number (see page 4 for details)

Packaging suffixes

- -BK (200 parts in polybag, Lead L= 4.3 ±0.3 mm)
- -BK2 (200 parts in polybag, Lead L= 21 ±3.0 mm)
- -AP (1000 parts Ammo pack, Pitch =12.7 mm)

Electrical characteristics

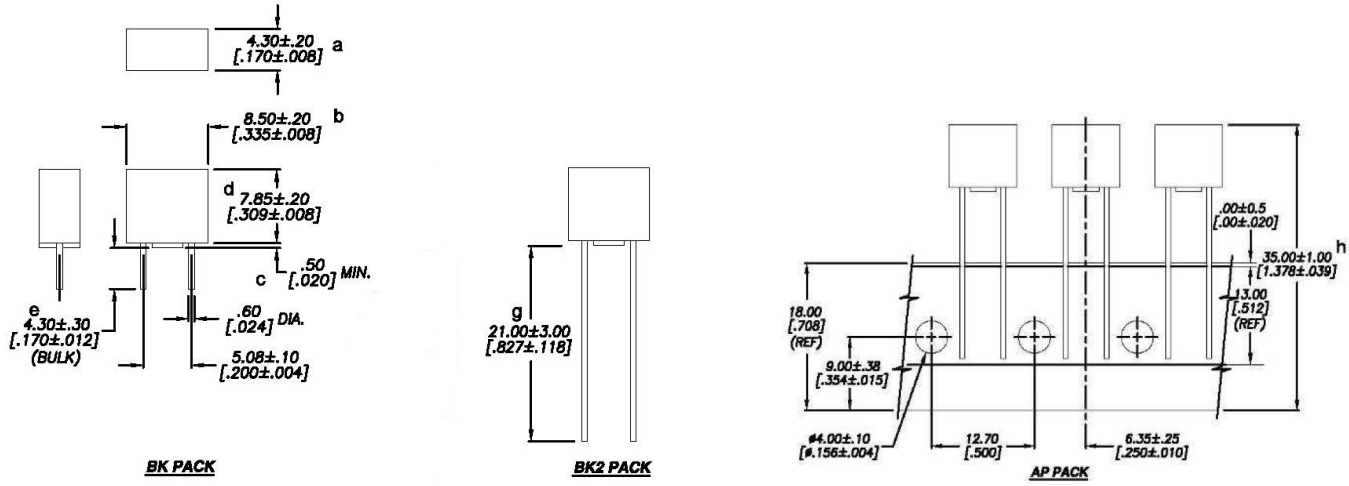
I_n	$1I_n$ min hour	$1.5I_n$ max minute	2In max ms
800 mA - 10 A	4	10	2

Product specifications

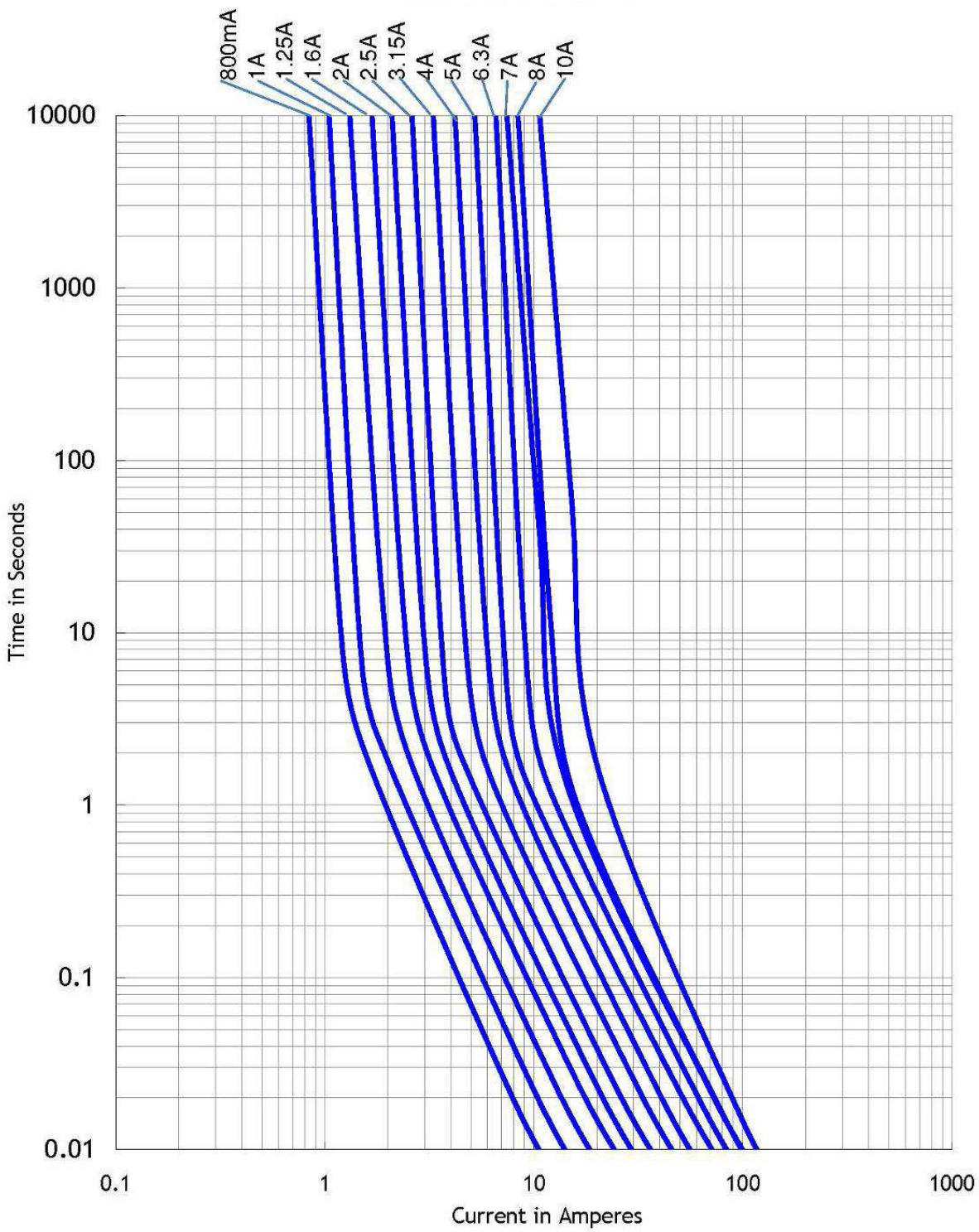
Part number[5]	Current rating (A)	Voltage rating (V_{AC})	Interrupting rating at rated voltage[1] (50 Hz) AC (A_{AC})	Typical DC cold resistance[2] (mΩ)	Typical melting[3] I^2t (A^2s)	Typical voltage drop[4] (mV)	cULus	PSE+
SS-5F-800mA	0.8	250	50	225	1.24	300	X	
SS-5F-1A	1.0	250	50	165.5	2.22	279	X	X
SS-5F-1.25A	1.25	250	50	116.5	3.83	244	X	X
SS-5F-1.6A	1.6	250	50	76	6.42	210	X	X
SS-5F-2A	2.0	250	50	55.5	9.35	194	X	X
SS-5F-2.5A	2.5	250	50	46	14.0	201	X	X
SS-5F-3.15A	3.15	250	50	31.5	22.5	168	X	X
SS-5F-4A	4.0	250	50	22.25	33.6	154	X	X
SS-5F-5A	5.0	250	50	16	53.7	154	X	X
SS-5F-6.3A	6.3	125	50	14.5	74.3	157	X	X
SS-5F-7A	7.0	125	50	11.4	107	133	X	X
SS-5F-8A	8.0	125	50	9.9	107	133	X	X
SS-5F-10A	10	125	50	6.5	146	109	X	X

1. Interrupting ratings: 800 mA to 10 A measured at 50 A, 95%-100% of PF on AC
2. Typical cold resistance measured at <10% of rated current
3. I^2t value measured at $10I_n$
4. Typical voltage drop measured at 20 °C ambient temperature at rated current
5. Part number definition: SS-5F-xxxA
   SS-5F= Product code
   xxxA= Ampere rating
   xxxmA= Milliampere rating

Dimensions and packaging- mm [in]

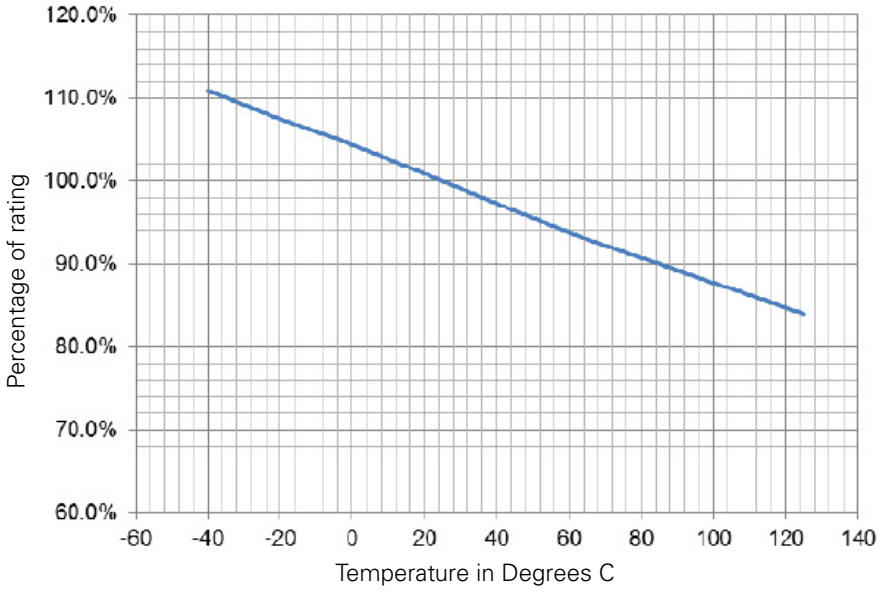


Time vs. current curve



Temperature derating curve

Normal Operating Temperature: 25 °C ± 2 °C



Environmental data

Operating temperature: -40 °C to +125 °C (with derating)
Storage temperature: -10 °C to +40 °C
Solderability: EIA-186-9E Method 9
High Frequency Vibration: Withstands 10 Hz to 55 Hz per MIL-STD-202F, Method 201A

Ordering codes

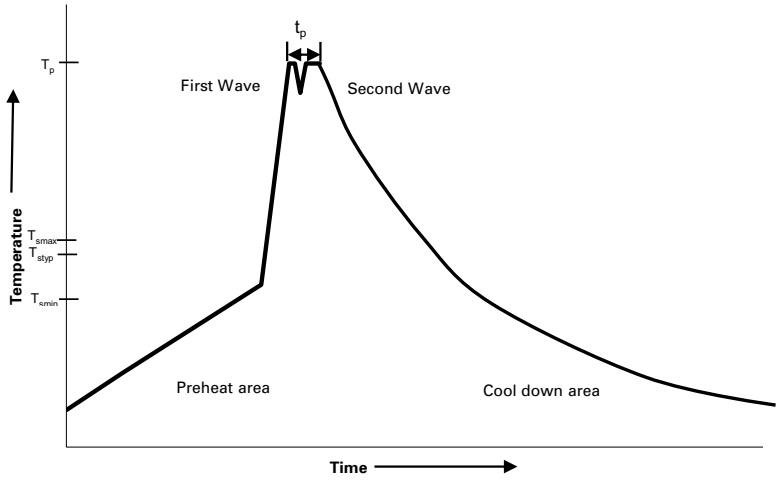
The ordering code is the part number replacing the "." with a "-" plus adding the packaging suffix.

Packaging suffix

- -BK (200 parts in polybag, Lead L= 4.3 ±0.3 mm)
- -BK2 (200 parts in polybag, Lead L= 21 ±3.0 mm)
- -AP (1000 parts Ammo pack, Pitch =12.7 mm)

	Ordering Code		
Part number	**-BK option**	**-BK2 option**	**-AP option**
SS-5F-800mA	SS-5F-800mA-BK	SS-5F-800mA-BK2	SS-5F-800mA-AP
SS-5F-1A	SS-5F-1A-BK	SS-5F-1A-BK2	SS-5F-1A-AP
SS-5F-1.25A	SS-5F-1-25A-BK	SS-5F-1-25A-BK2	SS-5F-1-25A-AP
SS-5F-1.6A	SS-5F-1-6A-BK	SS-5F-1-6A-BK2	SS-5F-1-6A-AP
SS-5F-2A	SS-5F-2A-BK	SS-5F-2A-BK2	SS-5F-2A-AP
SS-5F-2.5A	SS-5F-2-5A-BK	SS-5F-2-5A-BK2	SS-5F-2-5A-AP
SS-5F-3.15A	SS-5F-3-15A-BK	SS-5F-3-15A-BK2	SS-5F-3-15A-AP
SS-5F-4A	SS-5F-4A-BK	SS-5F-4A-BK2	SS-5F-4A-AP
SS-5F-5A	SS-5F-5A-BK	SS-5F-5A-BK2	SS-5F-5A-AP
SS-5F-6.3A	SS-5F-6-3A-BK	SS-5F-6-3A-BK2	SS-5F-6-3A-AP
SS-5F-7A	SS-5F-7A-BK	SS-5F-7A-BK2	SS-5F-7A-AP
SS-5F-8A	SS-5F-8A-BK	SS-5F-8A-BK2	SS-5F-8A-AP
SS-5F-10A	SS-5F-10A-BK	SS-5F-10A-BK2	SS-5F-10A-AP

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 to 260 °C	250 °C to 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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