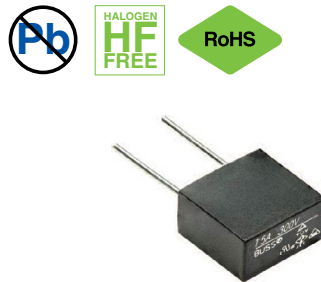


# SS-5F

## Fast-acting subminiature fuse



### Product features

- 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
- Rated up to 250 Vac

### 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**

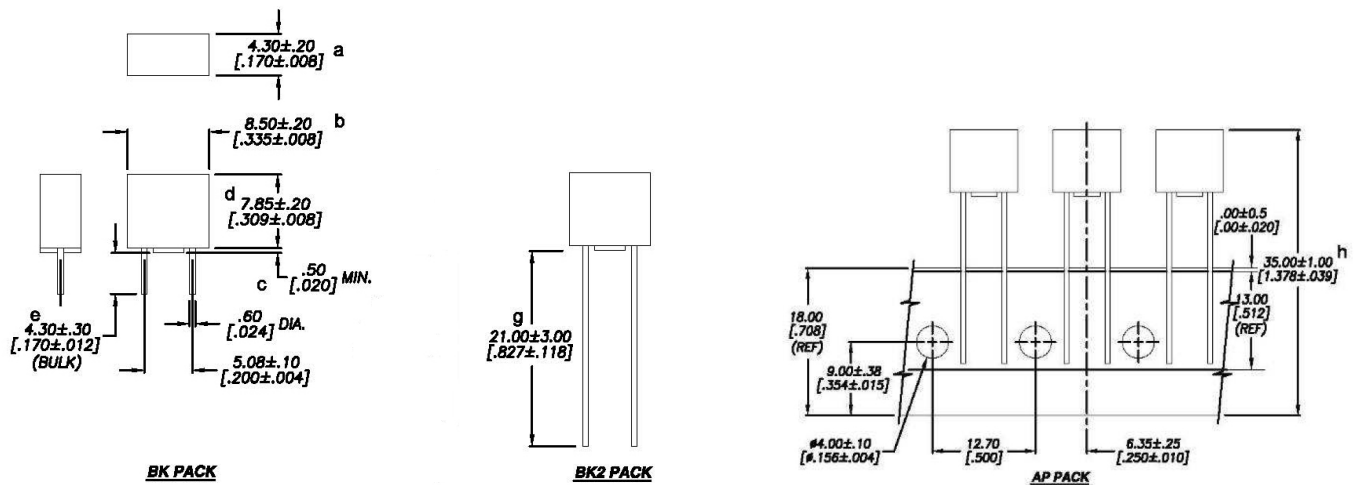
| $I_n$         | $1I_n$<br>min<br>hour | $1.5I_n$<br>max<br>minute | $2I_n$<br>max<br>ms |
|---------------|-----------------------|---------------------------|---------------------|
| 800 mA - 10 A | 4                     | 10                        | 2                   |

**Product specifications**

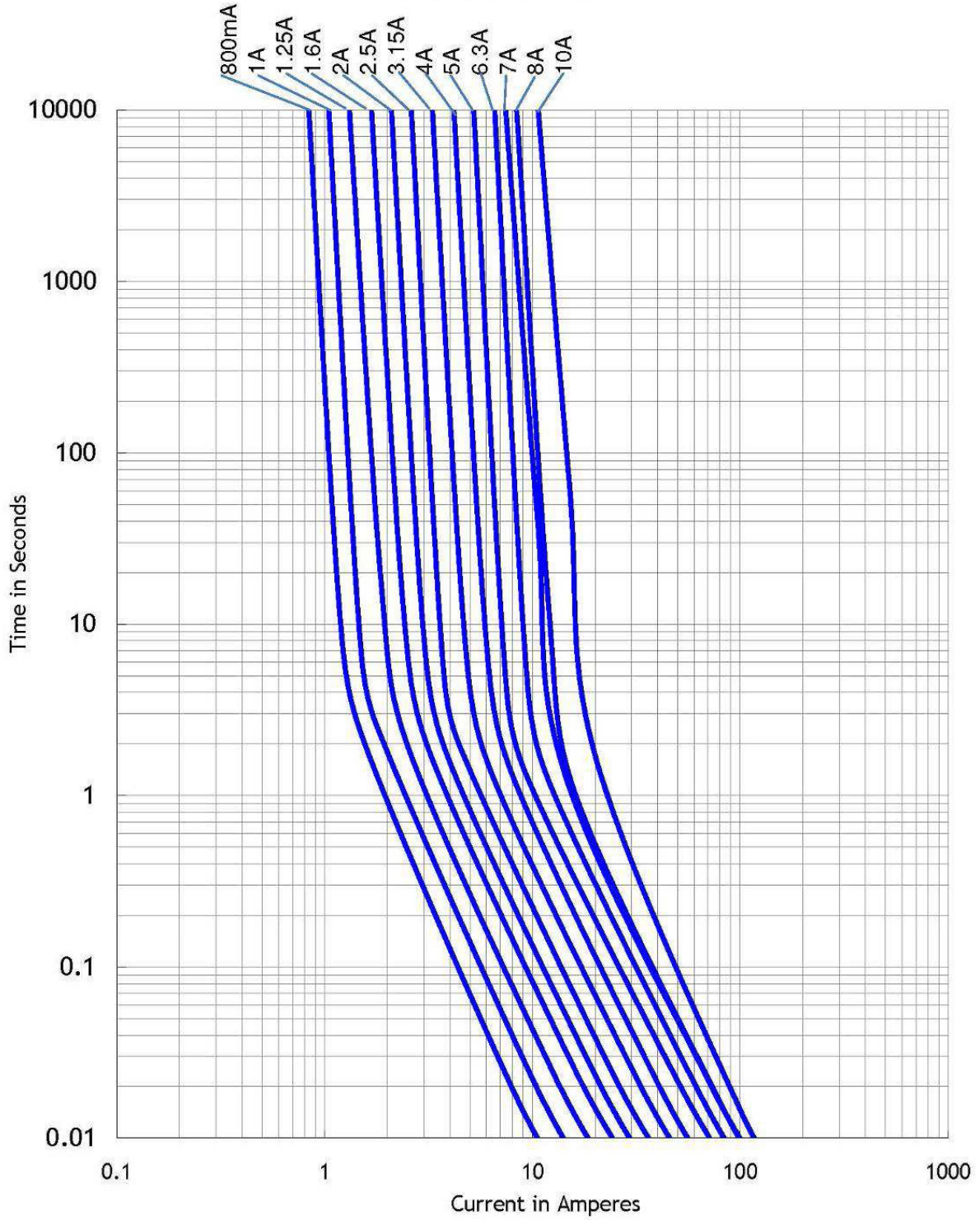
| Part number <sup>5</sup> | Current rating (A) | Voltage rating (V <sub>AC</sub> ) | Interrupting rating at rated voltage <sup>1</sup> (50 Hz) AC (A <sub>AC</sub> ) | Typical DC cold resistance <sup>2</sup> (mΩ) | Typical melting <sup>3</sup> I <sup>2</sup> t (A <sup>2</sup> s) | Typical voltage drop <sup>4</sup> (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<sup>2</sup>t value measured at 10I<sub>n</sub>
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]**

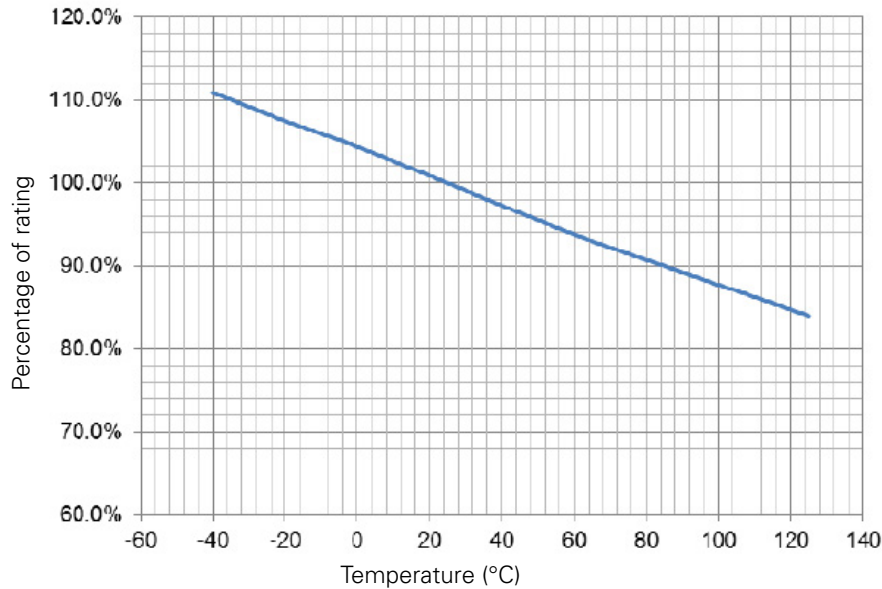


Time vs. current curve



### Temperature derating curve

Normal Operating Temperature: 25 °C ± 2 °C



### General specifications

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.

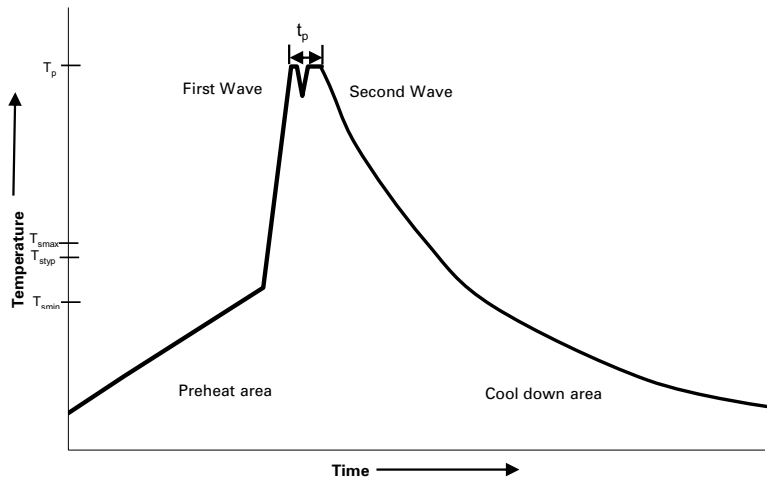
#### Packaging suffix

- -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                                    |
|                                     | • Temperature typ. ( $T_{styp}$ )             | 120 °C                                    |
|                                     | • Temperature max. ( $T_{smax}$ )             | 130 °C                                    |
|                                     | • Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ ) | 70 seconds                                |
| $\Delta$ 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<br>5 seconds max each wave     | 10 seconds max<br>5 seconds max each wave |
| Ramp-down rate                      | ~ 2 K/s min<br>~3.5 K/s typ<br>~5 K/s max     | ~ 2 K/s min<br>~3.5 K/s typ<br>~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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