Effective January 2021 Supersedes December 2019

# SS-5H 250/300 V Subminiature, radial leaded, time-delay fuses





## **Product features**

- Radial leaded, time delay with high breaking capacity
- Designed to IEC60127-3
- Plastic cap and base, flammability UL 94V0
- Protects against harmful overcurrents in primary and secondary applications
- Small rectangular-leaded design utilizes less board space
- High frequency vibration: MIL-STD-202F, Method 201A

# Applications

Primary and secondary circuit protection:

BUSSMANN

- 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

- UL Recognition: File E19180, Guide JDYX2/ JDYX8
- VDE: 40031800
- TUV: J50190080
- CCC: self-declaration 2020970207000250
- PSE: JET 1641-31007-1006 (1 A 5 A); JET 1641-31007-1007 (6.3 A)
- KC: SU05011-11001 (1 A ~ 2.5 A); SU05011-11002 (3.15 A ~ 6.3 A)

# Ordering

 The ordering code is the part number replacing the "" with a "-" plus adding the packaging suffix (i.e. SS-5H-1.25A; SS-5H-1-25A-BK)

## **Packaging suffixes**

## 250 V Version

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

## 300 V Version

- -APH (1000 parts Ammo pack, Pitch =12.7 mm)
- -BKH (200 parts in a polybag, Lead L=4.3 ±0.3 mm)
- -BK2H (200 parts in a polybag, Lead L=21 ±3.0 mm



# **Electrical characteristics**

I <u>n</u>	1.51 min minute	2.11 max minute	2.751 min ms	2.751 max s	4l min ms	4I <sub>n</sub> max s	101 <sub>n</sub> min ms	10l <sub>n</sub> max ms
1A - 6.3A	60	2	400	10	150	3	20	150

#### **Product specifications**

Part number	Current rating (A)	Voltage rating¹ (Vac)	Interrupting rating at rated voltage (50Hz) AC (A)	Typical DC cold resistance² (mΩ)	Typical melting³ I²t (A2s)	Typical voltage drop⁴ (mV)	VDE <sup>1</sup>	TUV <sup>1</sup>	CURUs <sup>1</sup>	CCC <sup>1</sup>	KC <sup>1</sup>	PSE+ JET <sup>1</sup>
SS-5H-1A	1.0	250/300	100	78	7.4	94.5	Х	Х	Х	Х	Х	Х
SS-5H-1.25A	1.25	250/300	100	57	12.8	87	Х	Х	Х	Х	Х	Х
SS-5H-1.6A	1.6	250/300	100	43	23	79	Х	Х	Х	Х	Х	Х
SS-5H-2A	2.0	250/300	100	31.2	29.8	75	Х	Х	Х	Х	Х	Х
SS-5H-2.5A	2.5	250/300	100	23.0	40.3	73.5	Х	Х	Х	Х	Х	Х
SS-5H-3.15A	3.15	250/300	100	17.5	67	62.5	Х	Х	Х	Х	Х	Х
SS-5H-4A	4.0	250/300	100	12	87	60.5	Х	Х	Х	Х	Х	Х
SS-5H-5A	5.0	250/300	100	7.35	120	43	Х	Х	Х	Х	Х	Х
SS-5H-6.3A	6.3	250/300	100	7.4	176	59	Х	Х	Х	Х	Х	Х

1. CCC and KC-Mark voltage rating only 250 Vac. VDE, TUV, cURus and PSE voltage ratings given at

both 250 Vac and 300 Vac

2. Typical cold resistance (measured at <10% of rated current)

3. I<sup>2</sup>T value is measured at  $10I_{n}$  DC

4. Typical voltage drop (voltage drop was measured at +20 °C ambient temperature at rated current)

# Dimensions and packaging (mm)



BK PACK



BK2 PACK



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## Time vs. current curve



# Temperature derating curve

Normal operating temperature: +25 °C±2 °C



# **General specifications**

Operating temperature -40 °C to +125 °C w ith proper correction factor applied
Storage temperature -10 °C to +40 °C
Solderability-EIA-186-9E Method 9
High Frequency Vibration Test-Withstands 10-55Hz per MIL-STD-202F, Method 201A
Endurance Test-IEC60127-3/4

#### Wave solder profile



#### Reference EN 61760-1:2006

Profile feat	ure	Standard SnPb solder	Lead (Pb) free solder		
Preheat	• Temperature min. (T <sub>smin</sub> )	100 °C			
	• Temperature typ. (T <sub>styp</sub> )	120 °C	120 °C		
	• Temperature max. (T <sub>smax</sub> )	130 °C	130 °C		
	• Time (T <sub>smin</sub> to T <sub>smax</sub> ) (t <sub>s</sub> )	70 seconds	70 seconds		
$\overline{\Delta}$ preheat to max Temperature		150 °C max.	150 °C max.		
Peak temperature (Tp)*		235 °C – 260 °C	250 °C – 260 °C		
Time at peak temperature (t <sub>p</sub> )		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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