

# S505H

## 5 mm x 20 mm 400 Vdc/500-600 Vac time-delay fuses



### Applications

- Power supplies - adapters
- Desktops/notebooks
- TVs / Displays
- Set top boxes
- Lighting ballasts
- Battery chargers
- Printers
- Game systems
- Air conditioners

### Product features

- 400 Vdc/500-600 Vac rating
- Time-delay, high breaking capacity
- 5 mm x 20 mm physical size
- Ceramic tube with plated end cap construction
- Designed to IEC 60127-2, Standard, Sheet 5
- RoHS Compliant, lead free and halogen free
- Optional axial leads available

Electrical Characteristics								
Amps	1.5I <sub>n</sub>	2.1I <sub>n</sub>	2.75I <sub>n</sub>		4I <sub>n</sub>		10I <sub>n</sub>	
	Min min.	Max min.	Min ms	Max s	Min ms	Max s	Min ms	Max ms
<1A	>60	<30	>250	<80	>50	<5	>5	<150
1A-3.15A	>60	<30	>750	<80	>95	<5	>10	<150
4A-6.3A	>60	<30	>750	<80	>150	<5	>10	<150
8A-10A	>30	<30	>750	<80	>150	<5	>10	<150

### Agency information

#### S505H-XXX-R (Ferrule)

- cURus approval: Guide JFHR2, File E56412 and Guide JFHR8, File E56412 (500 mA - 10 A)
- CCC Approval: 500 mA - 10 A, Cert. No.: 2010010207395946
- TUV Approval: 2 A - 10 A, Cert. No.: R50297821
- PSE Approval: 1 A - 5 A, Cert. No.: JET1641-31003-1017  
6.3 A - 10 A, Cert. No.: JET1641-31003-2001

#### S505H-V-XXX-R (Axial Leads)

- PSE Approval: 1 A - 5 A, Cert. No.: JET1641-31003-1018;  
6.3 A - 10 A, Cert. No.: JET1641-31003-2002
- cURus approval: Guide JFHR2, File E56412 and Guide JFHR8, File E56412 (500 mA - 10 A)
- CCC Approval: 500 mA - 10 A, Cert. No.: 2010010207395946

### Specifications

Catalog number	Voltage rating Vac	Max. voltage rating		Interrupting rating (A) under max voltage			Typical DC cold resistance Ω <sup>3</sup>	Typical voltage drop (mV) <sup>4</sup>	Typical value I <sup>2</sup> t (A <sup>2</sup> s) <sup>5</sup>	Agency approvals				
				250 Vac	Max Volts	400 Vdc				250 Vac				
		AC	DC							TUV	CCC <sup>6</sup>	PSE/JET	cURus <sup>2</sup>	
S505H-500-R	250	600	400	1500	100	1500	0.507	295	0.188					x
S505H-800-R	250	600	400	1500	100	1500	0.237	189	0.632					x
S505H-1-R	250	600	400	1500	100	1500	0.14	153	1.28				X	x
S505H-1.25-R	250	600	400	1500	100	1500	0.108	150	2.22				X	x
S505H-1.6-R	250	600	400	1500	100	1500	0.07	125	6.78				X	x
S505H-2-R	250	600	400	1500	100	1500	0.055	128	11.44	X	X	X	X	x
S505H-2.5-R	250	600	400	1500	100	1500	0.04	126	24.23	X	X	X	X	x
S505H-3.15-R	250	600	400	1500	100	1500	0.031	121	43.55	X	X	X	X	x
S505H-4-R	250	600	400	1500	100	1500	0.019	90	38.45	X	X	X	X	x
S505H-5-R	250	600	400	1500	100	1500	0.015	89	71.3	X	X	X	X	x
S505H-6.3-R	250	500	400	1500	100	1500	0.011	80	111.4	X	X	X	X	x
S505H-8-R	250	500	400	1500	100	1500	0.007	76	228.2	X			X	x
S505H-10-R	250	500	400	1500	100	1500	0.006	72	349.5	X			X	x

1. Max. voltage rating: Base on the breaking capacity test according to UL.  
 2. - Breaking capacity of 250 VAC/1500 A is tested by all agency approvals, test condition is 250 Vac, PF: 0.7-0.8.  
 - Breaking capacity of Max. voltage is tested by UL, PF:1. (500 mA - 5 A @ 600Vac, 6.3 A - 10 A @ 500 Vac)  
 - Breaking capacity test of DC is tested by UL under Capacitor Bank 4800 mF (for 400 V, 1500 A), 2400 mF (for 400 V, 500 A).

3. Cold resistance: measure at <10% rated current.  
 4. Typical voltage drop: voltage drop is measured under ambient +20 °C with rated current  
 5. Typical pre-arc I<sup>2</sup>t: Measured at 10I<sub>n</sub> DC  
 6. Does not apply to axial leaded versions.  
 7. 600/500 Vac, 400 Vdc.



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**Dimensions - mm**



A (ref): 0.65 mm (0.5 A - 6.3 A), 0.80 mm (8 A-10 A)

**Time-Current Curves**



**Construction**



**500-800mA**



**1-1.6 Amps**



**2 Amps & Above**

1. Ceramic Tube
2. Wire Fuse Element
3. Plated Fuse Cap
4. Filler
5. Solder
6. Eyelet



**Axial Leaded Versions**

1. S505H-XXX-R
2. Axial Leaded Cap

**Wave Soldering Parameters (axial lead only)**

Note: These devices are NOT recommended for IR or convection reflow processes.



- Reservoir Temperature: +260°C ± 3°C
- Soldering Time: 10 seconds max.

**Recommended Hand Solder Parameters**

- Soldering Iron Tip Temperature: +350°C ± 5°C
- Heating Time: 5 seconds max.

**Operating Temperature Range**

- -55 °C to +125 °C (see temperature derating curve below for percentage of fuse rating per ambient temperature)

**Temperature Derating Curve**



Packaging Code	
Packaging Code Prefix	Description
BK-	100 fuses packed into a cardboard carton with flaps folded
BK1-	1000 fuses packed into a poly bag
TR2-	1500 axial leaded fuses on tape and reel
Option Code	
Option Code	Description
-V	Axial leads – copper tinned wire with nickel plated brass end caps
-R	RoHS compliant version

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