

S505H

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



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 _n	2.1I _n	2.75I _n		4I _n		10I _n	
	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

Specifications

Catalog number	Voltage rating Vac	Max. voltage rating		Interrupting rating (A) under max voltage			Typical DC cold resistance Ω ³	Typical voltage drop (mV) ⁴	Typical value I ² t (A ² s) ⁵	Agency approvals			
										250 Vac		TUV	cURus ⁷
		AC	DC	Vac	Max Volts	400 Vdc				CCC	PSE/JET		
S505H-500-R	250	600	400	1500	100	1500	0.507	295	0.188	X			x
S505H-800-R	250	600	400	1500	100	1500	0.237	189	0.632	X			x
S505H-1-R	250	600	400	1500	100	1500	0.14	153	1.28	X	X	X	x
S505H-1.25-R	250	600	400	1500	100	1500	0.108	150	2.22	X	X	X	x
S505H-1.6-R	250	600	400	1500	100	1500	0.07	125	6.78	X	X	X	x
S505H-2-R	250	600	400	1500	100	1500	0.055	128	11.44	X	X	X	x
S505H-2.5-R	250	600	400	1500	100	1500	0.04	126	24.23	X	X	X	x
S505H-3.15-R	250	600	400	1500	100	1500	0.031	121	43.55	X	X	X	x
S505H-4-R	250	600	400	1500	100	1500	0.019	90	38.45	X	X	X	x
S505H-5-R	250	600	400	1500	100	1500	0.015	89	71.3	X	X	X	x
S505H-6.3-R	250	500	400	1500	100	1500	0.011	80	111.4	X	X	X	x
S505H-8-R	250	500	400	1500	100	1500	0.007	76	228.2	X	X	X	x
S505H-10-R	250	500	400	1500	100	1500	0.006	72	349.5	X	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 I²t: Measured at 10I_n DC
6. Does not apply to axial leaded versions.
7. 600/500 Vac, 400 Vdc.

Applications

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

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.: 2020970207000249
- 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.: JET1641-31003-1023

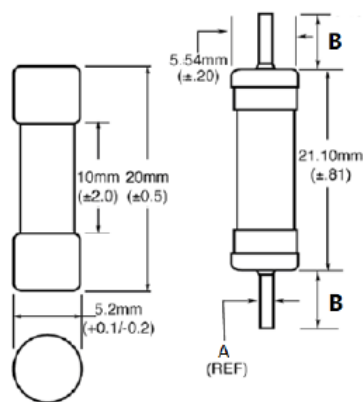
S505H-V-XXX-R (Axial Leads)

- PSE Approval: 1 A - 5 A, Cert. No.: JET1641-31003-1018;
6.3 A - 10 A, Cert. No.: JET1641-31003-1024
- cURus approval: Guide JFHR2, File E56412 and Guide JFHR8, File E56412 (500 mA - 10 A)
- CCC Approval: 500 mA - 10 A, Cert. No.: 2020970207000249



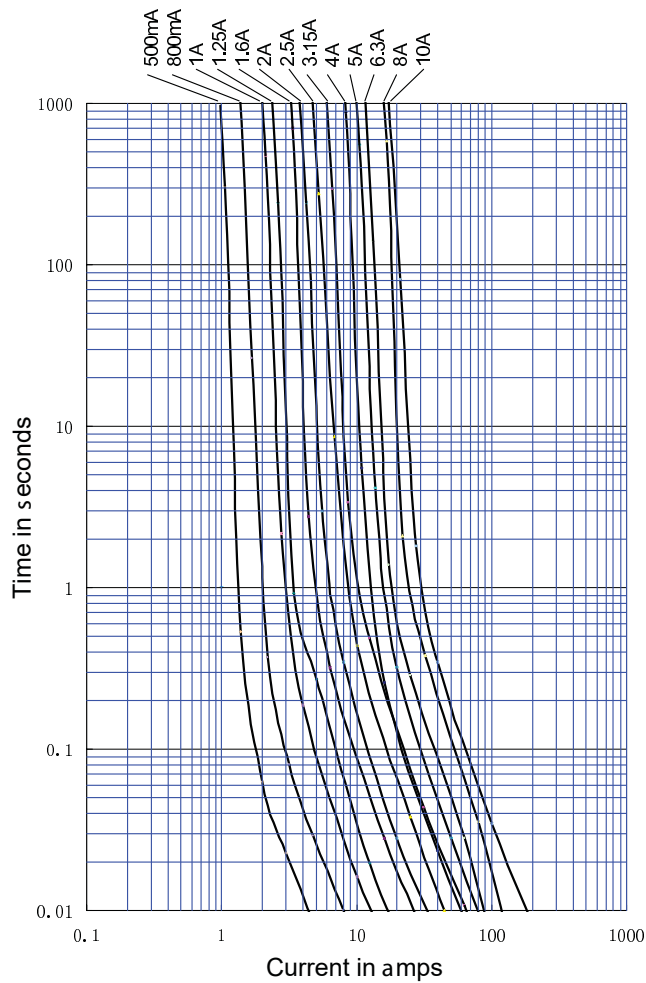
Powering Business Worldwide

Dimensions - mm

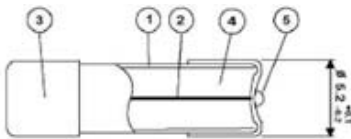


Dimension A (REF): 0.65mm (0.5A-6.3A), 0.80mm (8A-10A)
Dimension B: BK/ packaging, 38.1± 0.38mm
TR2/ packaging, 15.8 ± 2mm

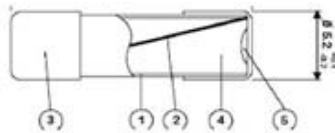
Time-current curves



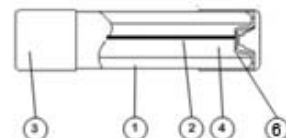
Construction



500-800 mA

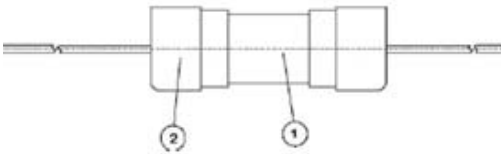


1-1.6 Amps



2 Amps & above

- 1. Ceramic tube
- 2. Wire fuse element
- 3. Plated fuse cap
- 4. Filler
- 5. Solder
- 6. Eyelet

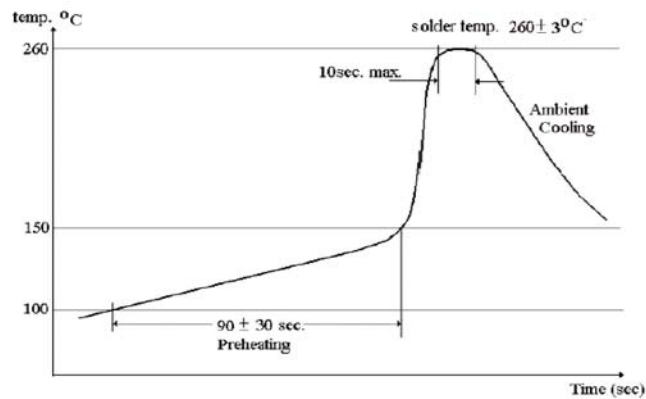


Axial leaded versions

- 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.

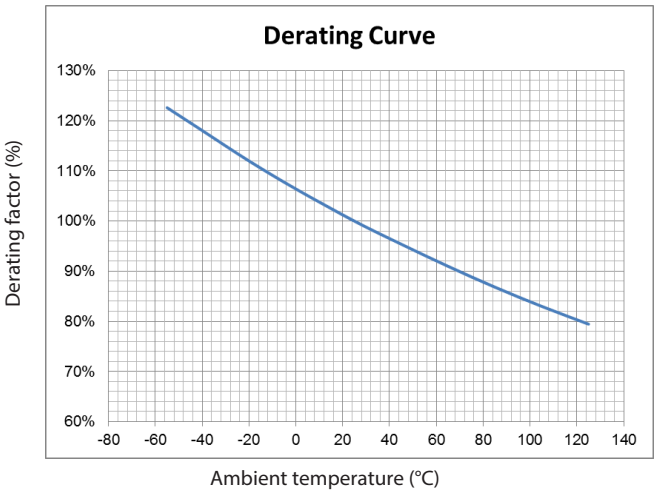
Recommended hand solder parameters

- 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

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/electronics

© 2020 Eaton
All Rights Reserved
Printed in USA
Publication No. 4406
November 2020

Eaton is a registered trademark.

All other trademarks are property
of their respective owners.

Follow us on social media to get the
latest product and support information.

