Effective December 2019 Supersedes June 2017



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									
	1.5l _n	2.11 _n	2.75l _n		4l _n		10l _n		
Amps	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	

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.: 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

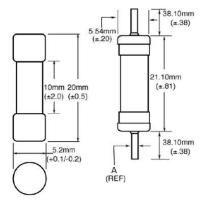
Specifications

				Interrupt	ing rating	(A)	Typical	Typical					
	Voltage					DC cold	voltage	Typical	Agency approvals			S	
Catalog	rating	rating		250 Max 400		resistance	drop	value	250 Vac				
number	Vac	AC	DC	Vac	Volts	Vdc	Ω^3	(mV)*	I2t (A2s)5	TUV⁵	CCC	PSE/JET	cURus
S505H-500-R	250	600	400	1500	100	1500	0.507	295	0.188				х
S505H-800-R	250	600	400	1500	100	1500	0.237	189	0.632				Х
S505H-1-R	250	600	400	1500	100	1500	0.14	153	1.28			Х	Х
S505H-1.25-R	250	600	400	1500	100	1500	0.108	150	2.22			Х	Х
S505H-1.6-R	250	600	400	1500	100	1500	0.07	125	6.78			Х	Х
S505H-2-R	250	600	400	1500	100	1500	0.055	128	11.44	Х	X	Х	Х
S505H-2.5-R	250	600	400	1500	100	1500	0.04	126	24.23	Х	X	Х	Х
S505H-3.15-R	250	600	400	1500	100	1500	0.031	121	43.55	Х	X	Х	Х
S505H-4-R	250	600	400	1500	100	1500	0.019	90	38.45	X	X	Х	Х
S505H-5-R	250	600	400	1500	100	1500	0.015	89	71.3	X	X	X	Х
S505H-6.3-R	250	500	400	1500	100	1500	0.011	80	111.4	Х	Х	Х	Х
S505H-8-R	250	500	400	1500	100	1500	0.007	76	228.2	Х		Х	Х
S505H-10-R	250	500	400	1500	100	1500	0.006	72	349.5	Х		Х	X

- $1. \ \, \text{Max. voltage rating: Base on the breaking capacity test according to UL}.$
- 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 $\,^\circ\text{C}$ with rated current
- 5. Typical pre-arc I^2t : Measured at 10In DC
- 6. Does not apply to axial leaded versions.
- 7. 600/500 Vac, 400 Vdc.

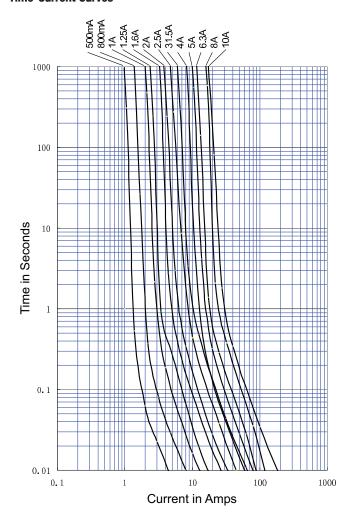


Dimensions - mm

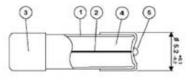


A (ref): 0.65 mm (0.5 A - 6.3 A), 0.80 mm (8 A-10 A)

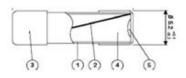
Time-Current Curves



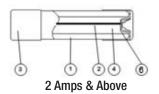
Construction



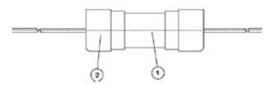
500-800mA



1-1.6 Amps



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

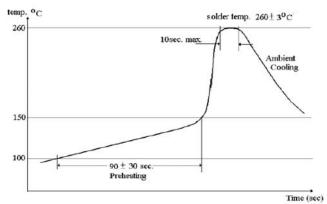


Axial Leaded Versions

- 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

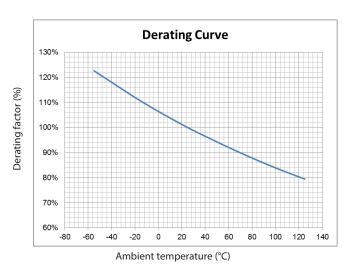
• Soldering Iron Tip Temperature: +350°C \pm 5°C

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

© 2019 Eaton All Rights Reserved Printed in USA Publication No. 4406 PCN19017M December 2019

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

