



## SinglFuse™ SF-1206HH-R Series Features

- Metal foil chip design for overcurrent protection
- EIA 1206 (3216 metric) footprint
- Small chip size with high current rating up to 30 A
- UL 248 compliance
- RoHS compliant\* and halogen free\*\*

## SF-1206HH-R Series - SMD Fuses

### Clearing Time Characteristics for Series

% of Current Rating	Clearing Time at 25 °C	
	Min.	Max.
100 %	4 hours	—
250 % (8~20 A)	—	5 seconds
350 % (8~30 A)	—	1 second

### Additional Information

Click these links for more information:



### Electrical Characteristics

Model	Rated Current (A)	Resistance (Ω) Typ.***	Rated Voltage	Interrupting Rating	Typical I <sup>2</sup> t (A <sup>2</sup> s) ****	Agency Recognition
						cUL: <a href="#">E198545</a>
SF-1206HH800R-2	8	0.0045	50 VDC 50 VAC	100 A @ 50 VDC 100 A @ 50 VAC	18.4	✓
SF-1206HH1000R-2	10	0.0040			29.1	✓
SF-1206HH1200R-2	12	0.0032			44.0	✓
SF-1206HH1500R-2	15	0.0026			77.0	✓
SF-1206HH2000R-2	20	0.00215			105.6	✓
SF-1206HH2500R-2	25	0.0013		200 A @ 50 VDC 200 A @ 50 VAC	171.7	✓
SF-1206HH3000R-2	30	0.0010			280.2	✓

\*\*\* Resistance value measured with ≤10 % rated current at 25 °C ambient. Tolerance ± 25 %.

\*\*\*\* Melting I<sup>2</sup>t calculated at 10 times rated current.

### Environmental Characteristics

Operating Temperature.....	-55 °C to +150 °C
Storage Conditions	
Temperature .....	+5 °C to +35 °C
Humidity.....	40 % to 75 %
Moisture Sensitivity Level.....	1
ESD Classification (HBM).....	Class 6

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\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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Users should verify actual device performance in their specific applications.

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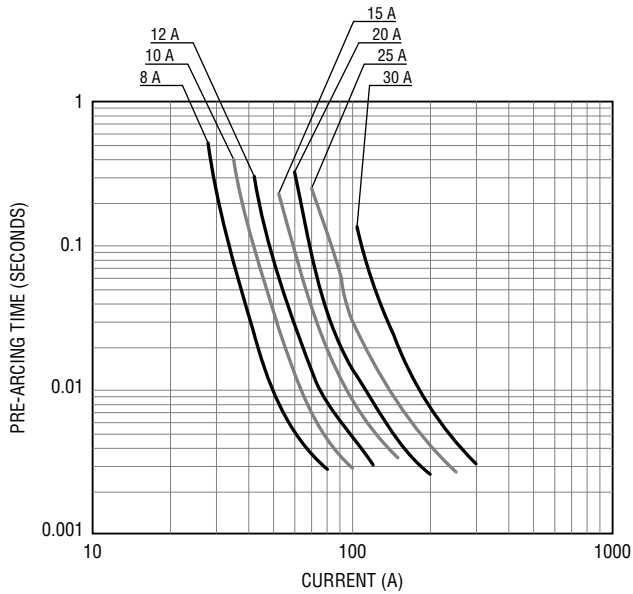


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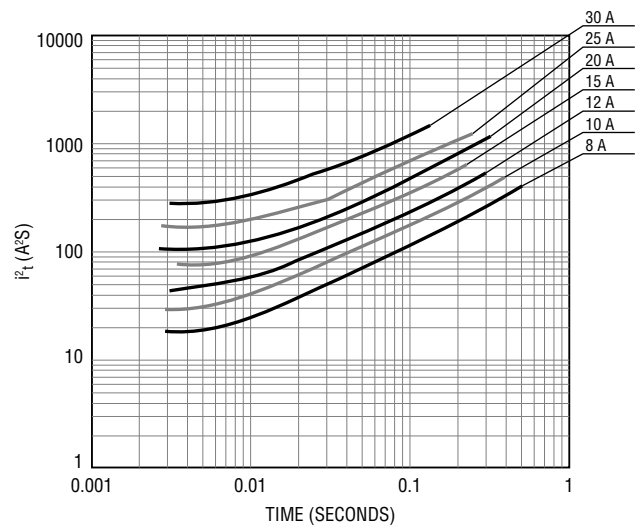
# SF-1206HH-R Series – SMD Fuses

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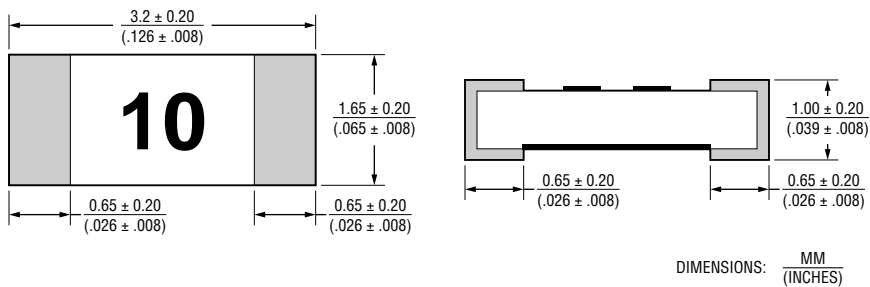
**Average Pre-Arcing Time vs. Current Curves**



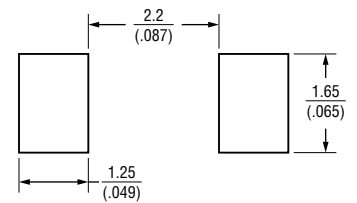
**Average  $I^2t$  vs.  $t$  Curves**



**Product Dimensions**



**Recommended Pad Layout**



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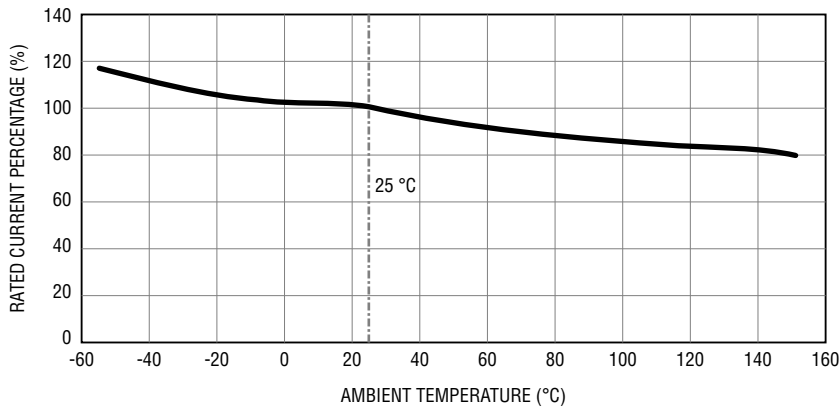
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# SF-1206HH-R Series – SMD Fuses

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## Current Rating Thermal Derating Curve



## How to Order

**SF - 1206 HH 1000 R - 2**

SinglFuse™ \_\_\_\_\_  
 Product Designator \_\_\_\_\_  
 SMD Footprint \_\_\_\_\_  
 1206 = EIA 1206 (3216 metric) size  
 Fusing Characteristic \_\_\_\_\_  
 HH = 1 sec. max. @ 350 %  $I_n$   
 Rated Current \_\_\_\_\_  
 800 ~ 3000 = 8 A ~ 30 A  
 Structure Type \_\_\_\_\_  
 R = Metal Foil  
 Packaging Type \_\_\_\_\_  
 2 = Tape & Reel (3,000 pcs./reel)

## Packaging

Reel Dimension	7-inch Tape and Reel
Specification	EIA 481-2
Quantity	3,000 pieces
Packaging Code	-2

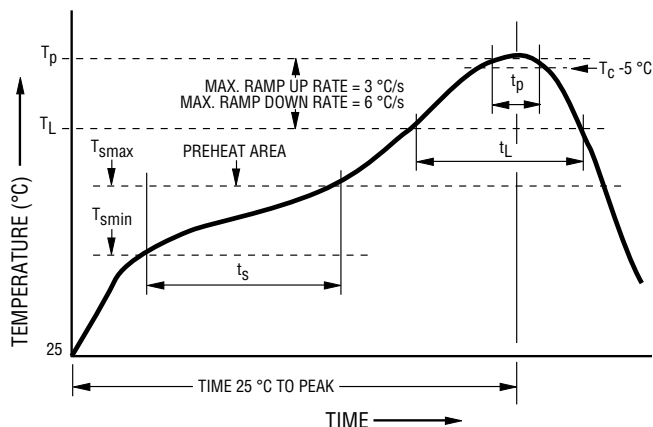
## Typical Part Marking

Represents total content. Layout may vary. Markings in black color.



Rated Current	Part Marking	Rated Current	Part Marking
8 A	8	20 A	20
10 A	10	25 A	25
12 A	12	30 A	30
15 A	15		

## Solder Reflow Recommendations



Profile Feature	Pb-Free Assembly
Preheat / Soak: Temperature Min. ( $T_{smin}$ ) Temperature Max. ( $T_{smax}$ ) Time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ )	150 °C 200 °C 60~120 seconds
Ramp Up Rate ( $T_L$ to $T_p$ )	3 °C / second max.
Liquidous Temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217 °C 60~150 seconds
Peak Package Body Temperature ( $T_p$ )	260 °C
Time ( $t_p$ )* within 5 °C of the specified classification temperature ( $T_c$ )	30 seconds*
Ramp Down Rate ( $T_p$ to $T_L$ )	6 °C / second max.
Time 25 °C to Peak Temperature	8 minutes max.

\* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

REV. 07/23

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