**RoHS COMPLIANT & ***HALOGEN FREE

AUTOMOTIVE GRADE

10

SingIFuse™ SF-1206HHA-R Series Features

- Metal foil chip design for overcurrent protection
- EIA 1206 (3216 metric) footprint
- Small chip size with high rating current up to 30 A
- AEC-Q200 (Grade 1) compliant*
- UL 248 compliant
- RoHS compliant** and halogen free***

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SF-1206HHA-R Series - Automotive Grade 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:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Characteristics

Model	Rated Current (A)	Resistance (Ω) Typ.****	Rated Voltage	Interrupting Rating	Typical I^2t (A^2s) *****	Agency Recognition
						cUL: E198545
SF-1206HHA800R-2	8	0.0045	50 VDC 50 VAC	100 A @ 50 VDC 100 A @ 50 VAC	18.4	✓
SF-1206HHA1000R-2	10	0.0040			29.1	✓
SF-1206HHA1200R-2	12	0.0032			44.0	✓
SF-1206HHA1500R-2	15	0.0026			77.0	✓
SF-1206HHA2000R-2	20	0.00215			105.6	✓
SF-1206HHA2500R-2	25	0.0013		200 A @ 50 VDC 200 A @ 50 VAC	171.7	✓
SF-1206HHA3000R-2	30	0.0010			280.2	✓

**** Resistance value measured with Ò10 % rated current at 25 °C ambient. Tolerance ± 25 %.
***** Melting I^2t calculated at 10 times rated current.

Environmental Characteristics

Operating Temperature.....-55 °C to +125 °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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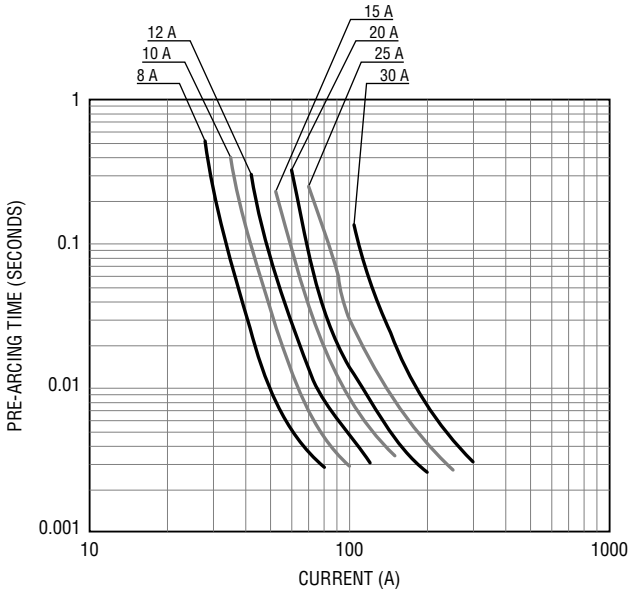
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* Meets Bourns' internal AEC-Q200 equivalent test plan.
** RoHS Directive 2015/863, Mar 31, 2015 and Annex.
*** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

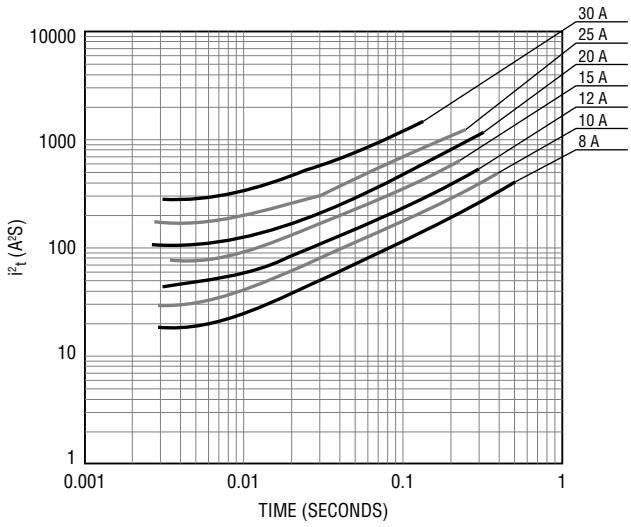
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WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

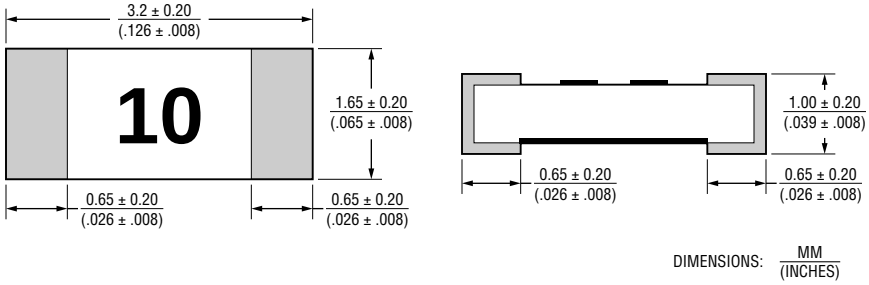
Average Pre-Arcing Time vs. Current Curves



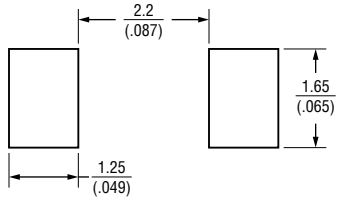
Average I²t vs. t Curves



Product Dimensions

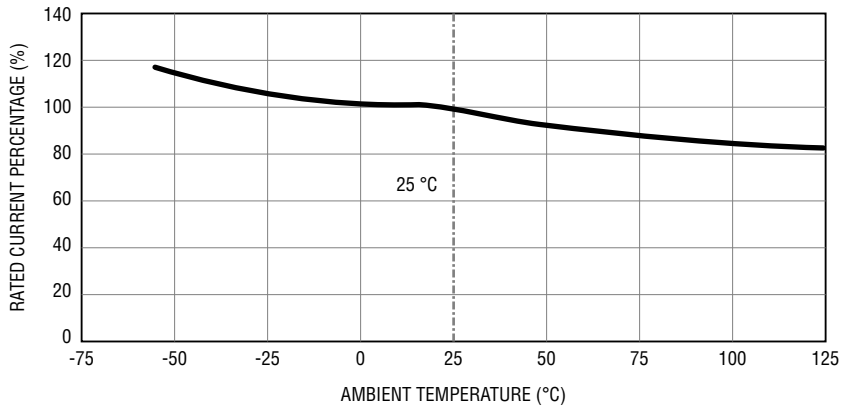


Recommended Pad Layout



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Current Rating Thermal Derating Curve



How to Order

SF - 1206 HH A 1000 R - 2

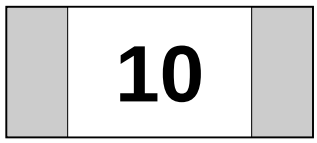
- SinglFuse™ Product Designator
- SMD Footprint
  - 1206 = EIA 1206 (3216 metric) size
- Fusing Characteristic
  - HH = 1 sec. max. @ 350 % I_n
- Automotive Grade
- Rated Current
  - 800 ~ 3000 = 8 A ~ 30 A
- Structure Type
  - R = Metal Foil
- Packaging Type
  - 2 = Tape & Reel (3,000 pcs./reel)

Packaging

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

Typical Part Marking

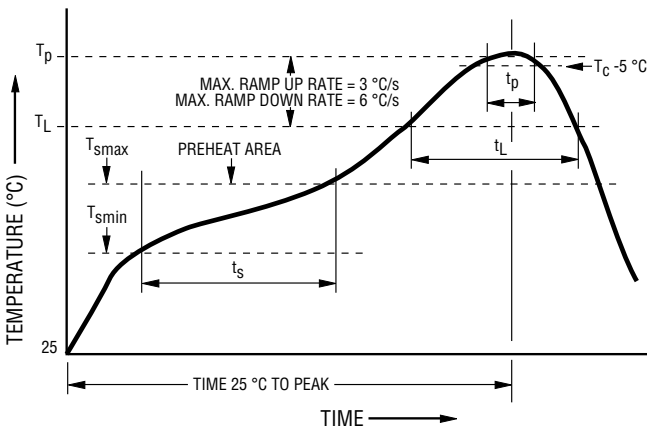
Represents total content. Layout may vary. Markings in black color.



Rated Current	Part Marking
8 A	8
10 A	10
12 A	12
15 A	15

Rated Current	Part Marking
20 A	20
25 A	25
30 A	30

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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