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SingIFuse™ SF-1206F Series Features

- Fast acting thin film chip fuse for overcurrent protection
- 3216 (EIA 1206) miniature footprint
- Surface mount packaging for automated assembly
- UL listed (UL 248-14)
- RoHS compliant* and halogen free**

SF-1206F Series - Fast Acting Surface Mount Fuses

Electrical Characteristics

Model	Rated Current (Amps)	Fusing Time	Resistance (mΩ) Typ.***	Rated Voltage	Breaking Capacity	Typical I^2t (A^2s)****
SF-1206F050	0.50	Open within 1 min. at 200 % rated current	517	DC 63 V	DC 63 V 50 A	0.011
SF-1206F080	0.80		211			0.031
SF-1206F100	1.00		132			0.034
SF-1206F125	1.25		95			0.062
SF-1206F150	1.50		76			0.144
SF-1206F200	2.00		40.5			0.181
SF-1206F250	2.50		31.5	DC 32 V	DC 32 V 50 A	0.351
SF-1206F300	3.00		23.25			0.501
SF-1206F400	4.00		16	DC 32 V	DC 32 V 50 A	0.954
SF-1206F500	5.00		12			0.966
SF-1206F700	7.00		7.5			3.25

*** Resistance value was measured with less than 10 % of rated current. Tolerance ±25 %.
****Typical I^2t value is measured at 10x rated current.

Reliability Testing

No.	Test	Requirement	Test Condition
1	Carrying Capacity	No fusing	Rated current, 4 hours
2	Fusing Time	Within 1 minute	200 % of its rated current
3	Interrupting Ability	No mechanical damages	After the fuse is interrupted, rated voltage applied for 30 seconds again
4	Bending Test	No mechanical damages	Distance between holding points: 90 mm, Bending: 3 mm,1 time, 30 seconds
5	Resistance to Solder Heat	±20 %	260 °C ±5 °C,10 seconds ±1 second
6	Solderability	95 % coverage minimum	235 °C ±5 °C, 2 ±0.5 second 245 °C ±5 °C, 2 ±0.5 second (lead free)
7	Temperature Rise	<75 ° C	100 % of its rated current, measure of surface temperature
8	Resistance to Dry Heat	±20 %	105 °C ±5 °C,1000 hours
9	Resistance to Solvent	No evident damage on protective coating and marking	23 °C ±5 °C of isopropyl alcohol, 90 seconds
10	Residual Resistance	10k ohms or more	Measure DC resistance after fusing
11	Thermal Shock	ΔR < 10 %	-20 °C / +25 °C /+125 °C /+25 °C, 10 cycles

Agency Recognition

UL File Number E198545

Environmental Characteristics

Operating Temperature.....-20 °C to +105 °C
Storage Conditions
Temperature .....+5 °C to +35 °C
Humidity.....40 % to 75 %
Shelf Life..... 2 years from manufacturing date
Moisture Sensitivity Level 1
ESD Classification (HBM)..... Class 6

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

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
** 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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SingIFuse™ SF-1206F Series Applications

- Portable memory
- LCD monitors
- Disk drives
- PDAs
- Digital cameras
- DVDs
- Cell phones
- Rechargeable battery packs
- Battery chargers
- Set top boxes
- Industrial controllers

SF-1206F Series - Fast Acting Surface Mount Fuses

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Typical Part Marking

Represents total content. Layout may vary.



RATED CURRENT (A)

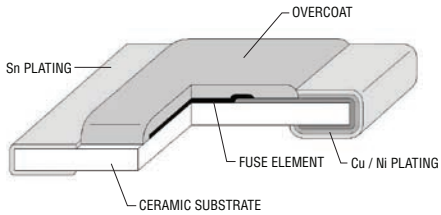
F = 0.50	T = 2.50
K = 0.80	3 = 3.00
L = 1.00	W = 4.00
M = 1.25	Y = 5.00
P = 1.50	Z = 7.00
S = 2.00	

How to Order

SF - 1206 F 050 - 2

- SingIFuse™ Product Designator
- SMD Footprint: 3216 (1206) size
- Fuse Blow Type: F = Fast acting
- Rated Current: 050-700 (500 mA - 7.00 A)
- Packaging Type: - 2 = Tape & Reel (5,000 pcs./reel)

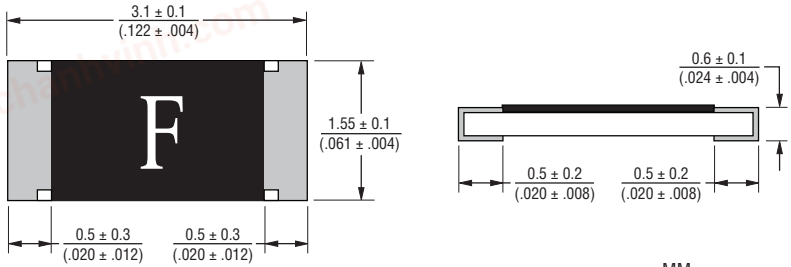
Construction & Material Content



Packaging Quantity

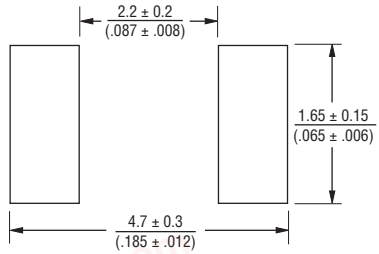
5,000 pieces per 7-inch reel

Product Dimensions

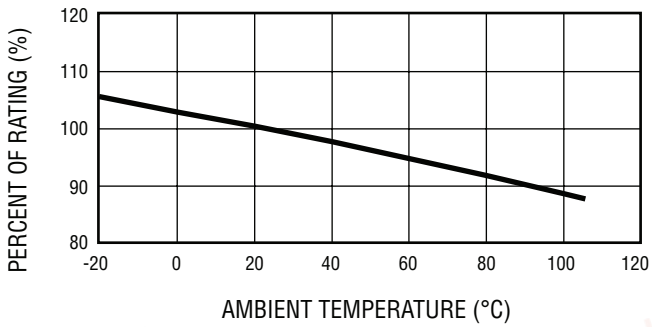


DIMENSIONS: MM / (INCHES)

Recommended Pad Layout



Thermal Derating Curve



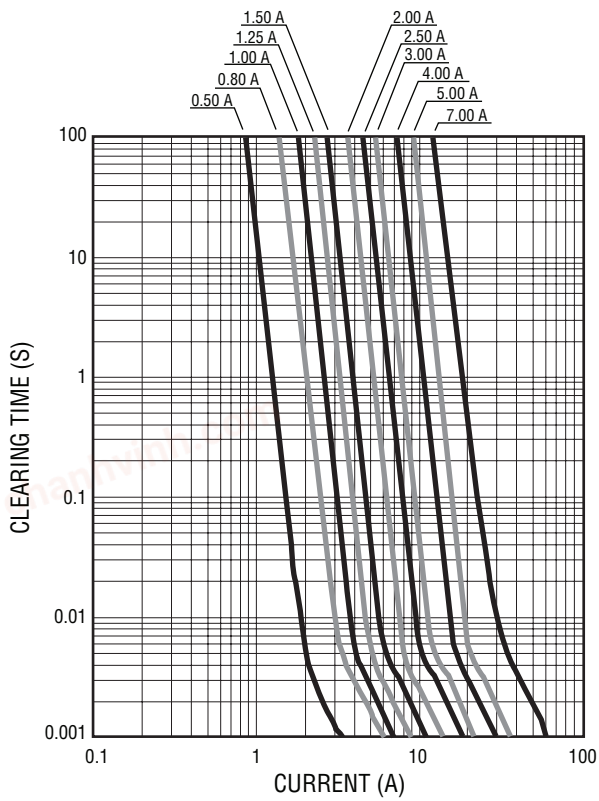
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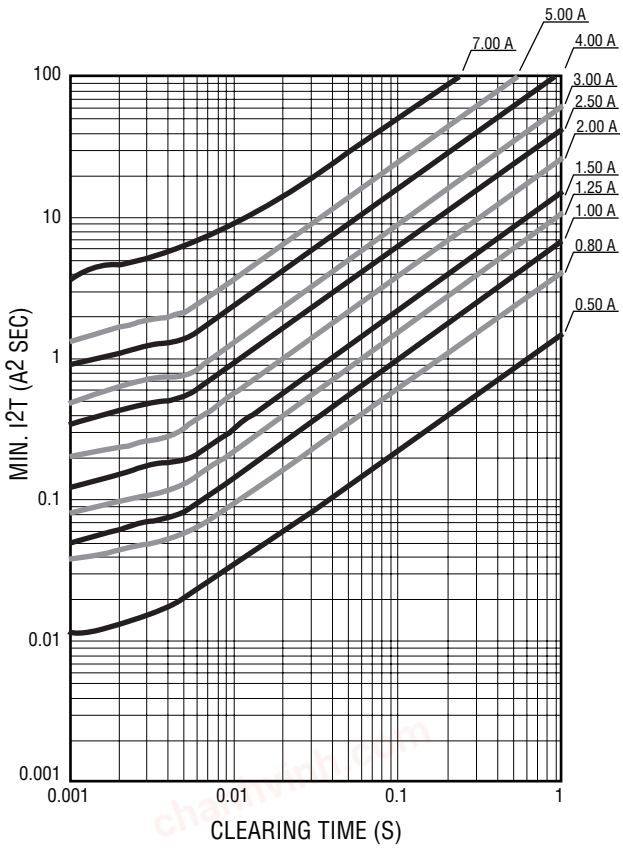
SF-1206F Series - Fast Acting Surface Mount Fuses

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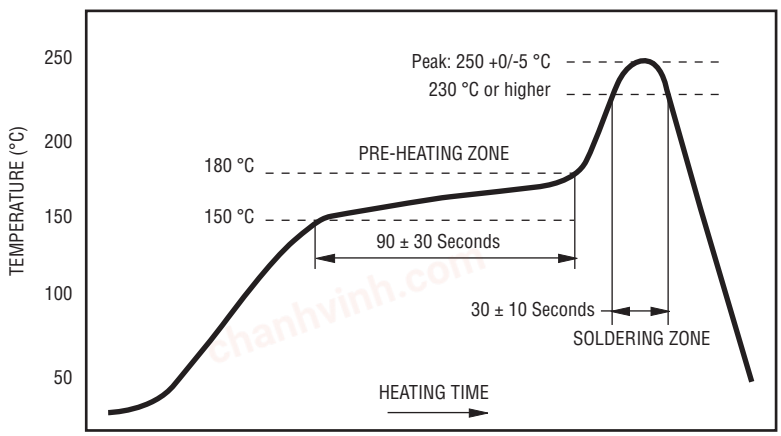
Average Time Current Curves



Minimum I²T V Clear Time Curves



Solder Reflow Recommendations



PEAK: 250 +0/-5 °C, 5 seconds
PRE-HEATING ZONE: 150 to 180 °C, 90 ± 30 seconds
SOLDERING ZONE: 230 °C or higher, 30 ± 10 seconds

REV. I 01/19

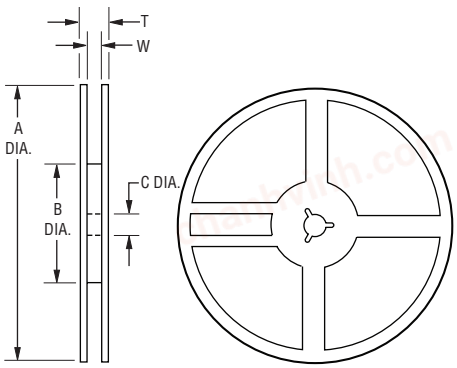
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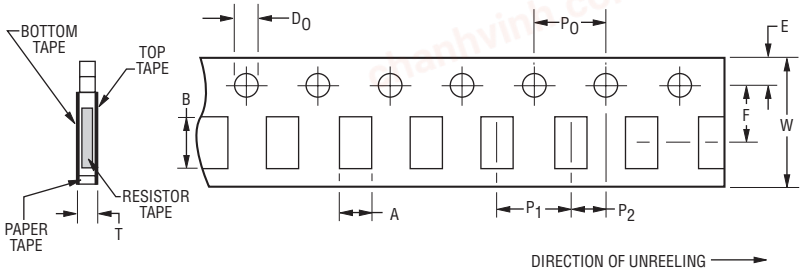
SF-1206F Series Tape and Reel Specifications

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Tape Dimensions	SF-1206F Series per EIA 481-2
W	8.0 ± 0.2 (.315 ± .008)
P_0	4.0 ± 0.1 (.157 ± .004)
P_1	4.0 ± 0.1 (.157 ± .004)
P_2	2.0 ± 0.05 (.079 ± .002)
A	2.0 ± 0.15 (.079 ± .006)
B	3.6 ± 0.2 (.142 ± .008)
F	3.5 ± 0.05 (.138 ± .002)
E	1.75 ± 0.1 (.069 ± .004)
D_0	1.5 + 0.1/-0 (.059 + .004/-0)
T	0.84 ± 0.1 (.033 ± .004)
Reel Dimensions	
A	180 +0/-3.0 (7.087 +0/-.118)
B Min.	60.0 (2.362)
C	13.0 ± 1.0 (.512 ± .039)
W	9.0 ± 1.0 (.354 ± .039)
T	11.4 ± 2.0 (.449 ± .079)



DIMENSIONS: MM (INCHES)



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