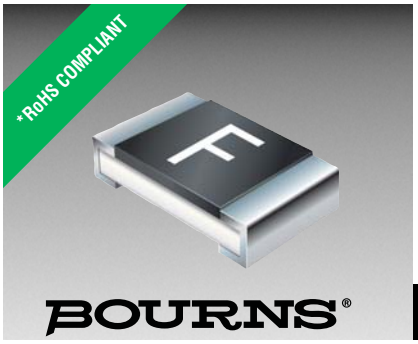


SingIFuse™ SF-1206F Series Features

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

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	590	DC 63 V	DC 63 V 50 A	0.011
SF-1206F080	0.80		225			0.031
SF-1206F100	1.00		130			0.034
SF-1206F125	1.25		88			0.062
SF-1206F150	1.50		65			0.144
SF-1206F200	2.00		38			0.181
SF-1206F250	2.50		32	DC 32 V	DC 32 V 50 A	0.351
SF-1206F300	3.00		23			0.501
SF-1206F400	4.00		15	DC 24 V	DC 24 V 50 A	0.954
SF-1206F500	5.00		11			0.966
SF-1206F700	7.00		7			3.25

***Resistance value was measured with less than 10 % of rated current.

Reliability Testing

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

Typical Part Marking

Represents total content. Layout may vary.



RATING 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
  S = Slow blow
- Rated Current
  050-700 (500 mA - 7.00 A)
- Packaging Type
  - 2 = Tape & Reel (5,000 pcs./reel)

BOURNS®

Asia-Pacific:
Tel: +886-2 2562-4117
Fax: +886-2 2562-4116

Europe:
Tel: +41-41 768 5555
Fax: +41-41 768 5510

The Americas:
Tel: +1-951 781-5500
Fax: +1-951 781-5700

www.bourns.com

* RoHS Directive 2002/95/EC Jan 27 2003 including Annex.

** Bourns is using the definition that appears to be the prevalent definition used as the industry standard at this time. The Bourns definition of "halogen-free" is: Bromine (Br) content: ≤ 900 ppm; Chlorine (Cl) content: ≤ 900 ppm; Total Br + Cl content: ≤1500 ppm.

"SingIFuse" is a trademark of Bourns, Inc.
Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

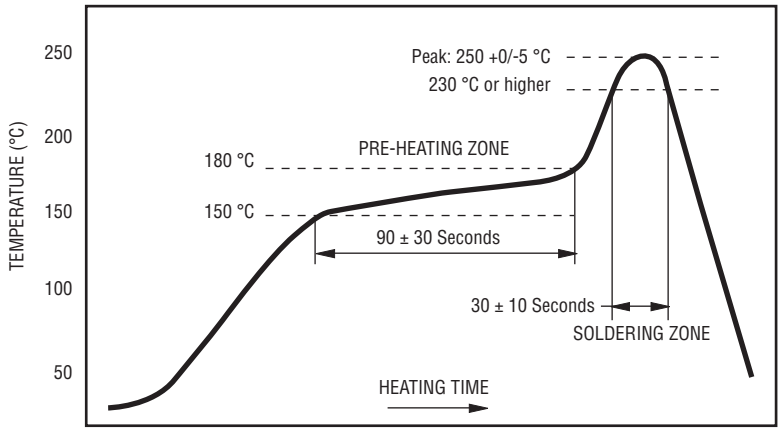
SingIFuse™ SF-1206F Series Applications

- 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

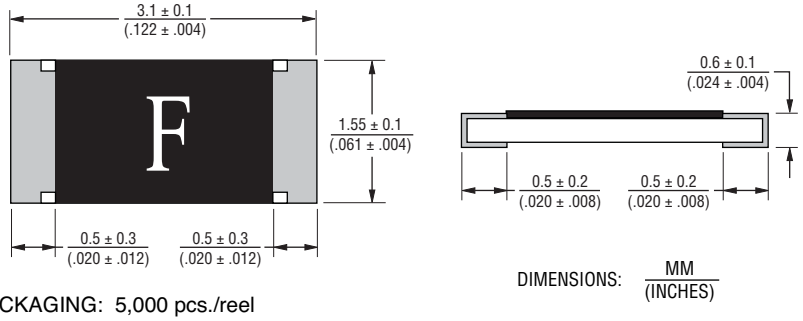
BOURNS®

Solder Reflow Recommendations



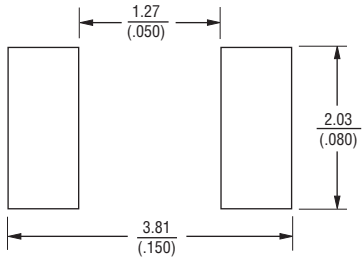
PEAK: 250 +0/-5 °C, 5 seconds
PRE-HEATING ZONE: 150 to 180 °C, 90 ± 30 seconds
SOLDERING ZONE: 230 °C or higher, 30 ± 10 seconds

Product Dimensions

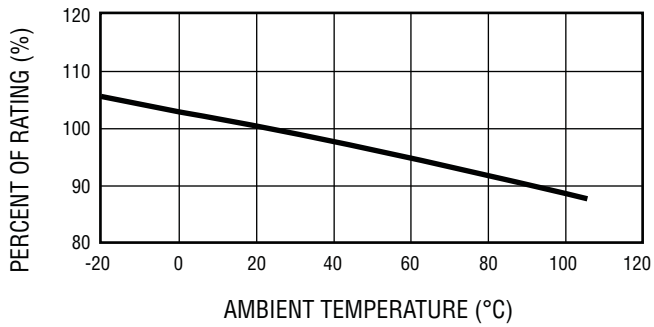


PACKAGING: 5,000 pcs./reel

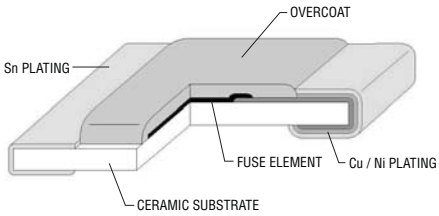
Recommended Pad Layout



Thermal Derating Curve



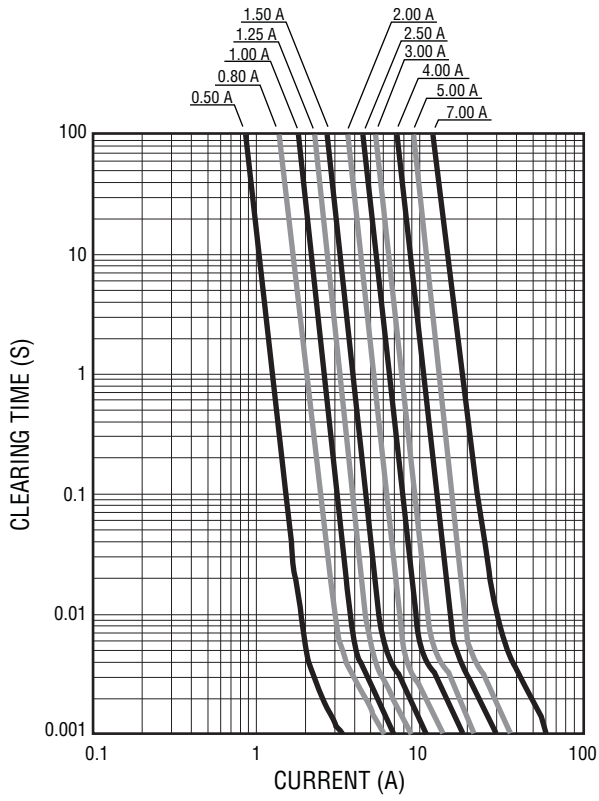
Construction & Material Content



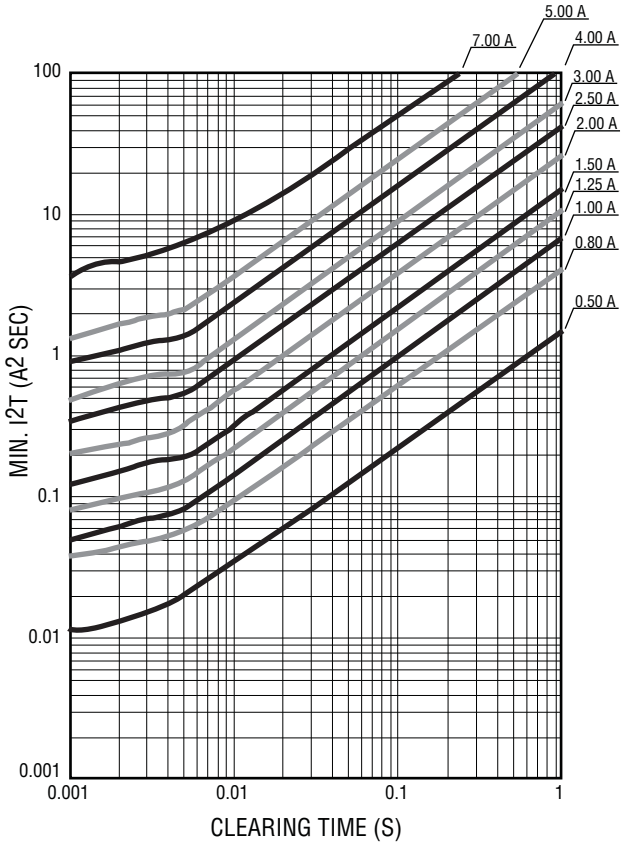
Operating Temperature.....-40 °C to +105 °C
Storage Conditions
Temperature .....+5 °C to +35 °C
Humidity.....40 % to 75 %
Shelf Life..... 2 years from manufacturing date

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Average Time Current Curves



Minimum I²T V Clear Time Curves

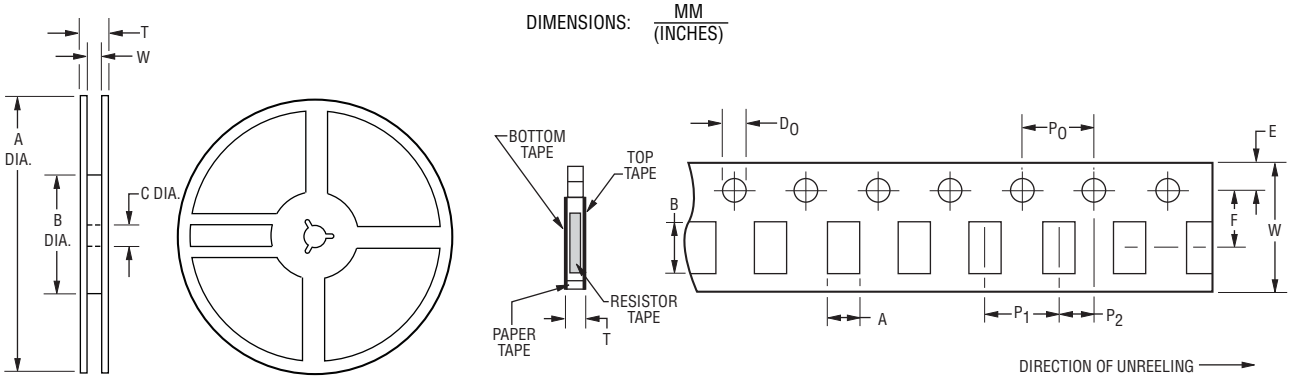


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SF-1206F Series Tape and Reel Specifications

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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)



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