SingIFuse™ SF-1206SxxxM Series Features

- Single blow fuse for overcurrent protection
- 3216 (EIA 1206) miniature footprint
- Slow blow fuse (Fusing time ≤5 seconds at 250 % rated current)
- UL 248-14 listed
- Surface mount packaging for automated assembly
- Multilayer SMD design
- RoHS compliant* and halogen free**

SF-1206SxxxM Series - Slow Blow Multilayer Surface Mount Fuses

Electrical Characteristics

Model	Rated Current (Amps)	Fusing Time	Resistance (Ω) Typ.***	Rated Voltage	Resistance (Ω) Typ.***	Typical I^2t (A^2s) ****
SF-1206S050M-2	0.50	Open within 5 sec. at 250 % rated current	0.730	DC 63 V	DC 63 V 50 A	0.002
SF-1206S075M-2	0.75		0.513			0.005
SF-1206S100M-2	1.00		0.220			0.011
SF-1206S150M-2	1.50		0.120			0.024
SF-1206S175M-2	1.75		0.100			0.045
SF-1206S200M-2	2.00		0.050			0.075
SF-1206S250M-2	2.50		0.035	DC 32 V	DC 32 V 50 A	0.110
SF-1206S300M-2	3.00		0.031			0.210
SF-1206S400M-2	4.00		0.022		DC 32 V 45 A	0.350
SF-1206S500M-2	5.00		0.015			0.600
SF-1206S600M-2	6.00		0.013			1.000
SF-1206S700M-2	7.00		0.011			1.600
SF-1206S800M-2	8.00		0.008			2.300

*** Resistance value measured with ≤10 % rated current at 25 °C ambient.
****Melting I^2t calculated at 0.001 second pre-arcing time.

Reliability Testing

No.	Test	Requirement	Test Condition	Test Reference
1	Soldering heat resistance	DCR change ≤ ±10 % No mechanical damage	One dip at 260 °C for 60 seconds	MIL-STD-202 Method 210
2	Solderability	Minimum 95 % coverage	One dip at 245 °C for 5 seconds	MIL-STD-202 Method 208
3	Thermal shock	DCR change ≤ ±10 % No mechanical damage	100 cycles between -65 °C and +125 °C	MIL-STD-202 Method 107
4	Moisture resistance	DCR change ≤ ±15 % No excessive corrosion	10 cycles	MIL-STD-202 Method 106
5	Salt spray	DCR change ≤ ±10 % No excessive corrosion	48 hour exposure, 5 % salt solution	MIL-STD-202 Method 101
6	Mechanical vibration	DCR change ≤ ±10 % No mechanical damage	0.4 inch D.A. or 30 G between 5-3000 Hz	MIL-STD-202 Method 204
7	Mechanical shock	DCR change ≤ ±10 % No mechanical damage	1500 G, 0.5 ms, half-sine shocks	MIL-STD-202 Method 213
8	Life	No electrical “opens” during testing. Voltage drop change shall be less than ±20 % of initial value.	80 % rated current (75 % for ≤1 A fuses) for 2000 hours at ambient temperature +20 °C ~ +30 °C	Refer to STP document

Environmental Characteristics

Operating Temperature.....-55 °C to +125 °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

BOURNS®

Asia-Pacific:
Tel: +886-2 2562-4117
Email: asiacus@bourns.com

Europe:
Tel: +36 88 520 390
Email: eurocus@bourns.com

The Americas:
Tel: +1-951 781-5500
Email: americus@bourns.com

www.bourns.com

* 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.

SingIFuse™ SF-1206SxxxM Series Applications

- Portable memory
- LCD monitors
- Disk drives
- PDAs
- Digital cameras
- MP3 players
- Cell phones
- Rechargeable battery packs
- Battery chargers
- Set-top boxes
- Industrial controllers

SF-1206SxxxM Series - Slow Blow Multilayer Surface Mount Fuses

BOURNS®

Typical Part Marking

Represents total content. Layout may vary.

RATED CURRENT (A)

C = 0.50	K = 3.00
D = 0.75	M = 4.00
E = 1.00	N = 5.00
G = 1.50	+ = 6.00
H = 1.75	– = 7.00
I = 2.00	= = 8.00
J = 2.50	

How to Order

SF - 1206 S 100 M - 2

SingIFuse™ Product Designator

SMD Footprint
1206 = 3216 (EIA 1206) size

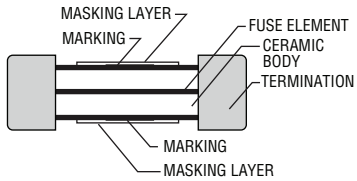
Fuse Blow Type
S = Slow blow

Rated Current
050 ~ 800 (0.50 A - 8.00 A)

Structure Type
M = Multilayer

Packaging Type
- 2 = Tape & Reel

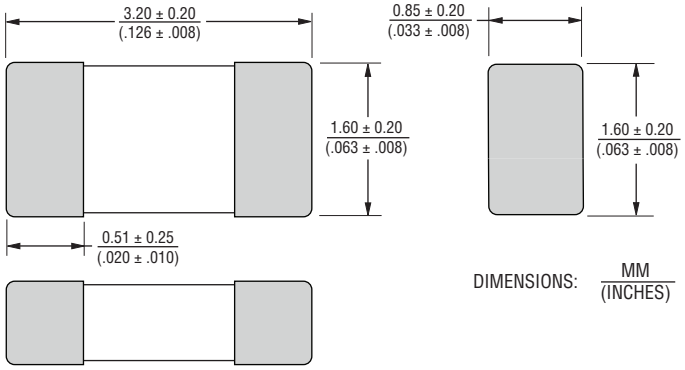
Construction



Packaging Quantity

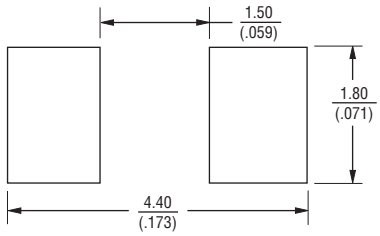
.....3,000 pieces per 7 inch reel

Product Dimensions

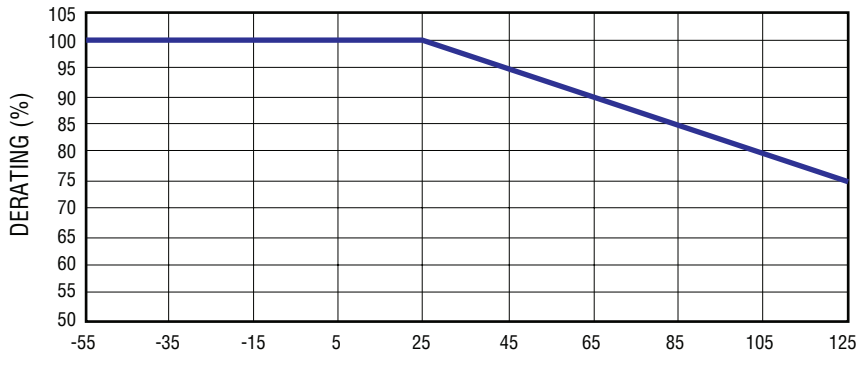


DIMENSIONS: MM / (INCHES)

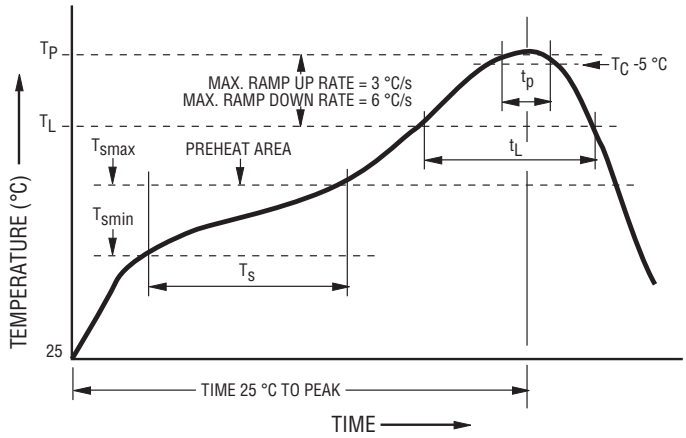
Recommended Pad Layout



Current Rating Thermal Derating Curve



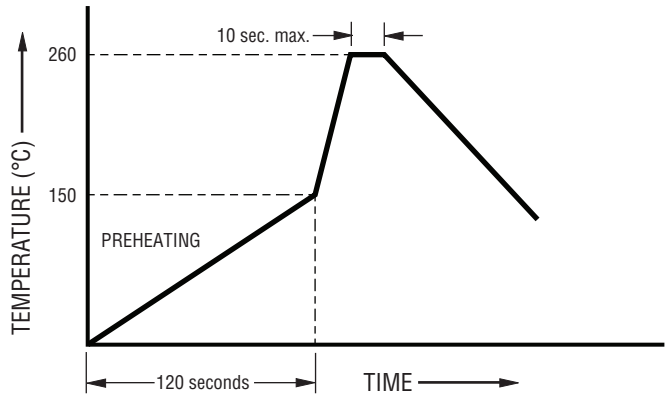
Solder Reflow Recommendations



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.

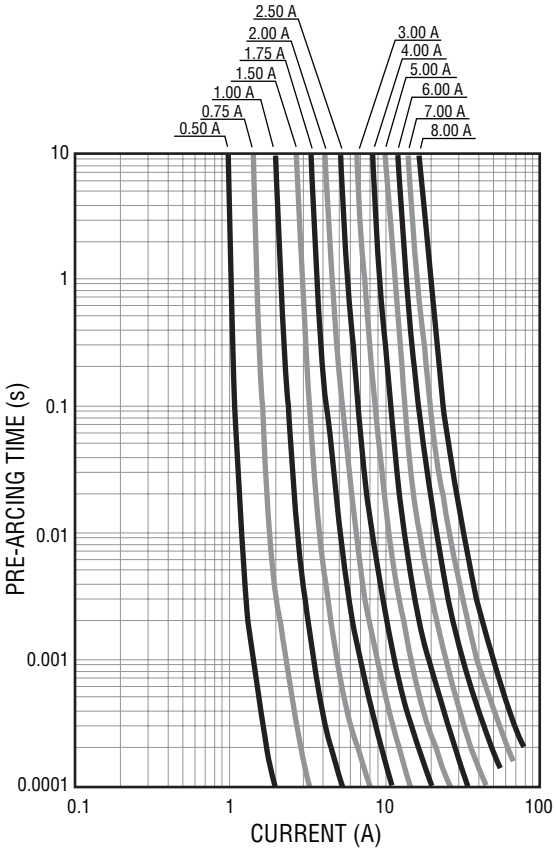
**Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.*

Recommended Temperature Profile for Wave Soldering

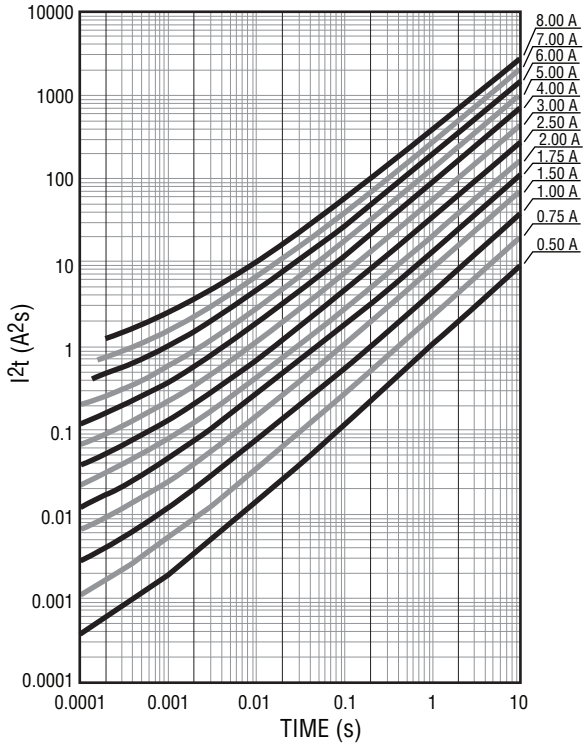


Wave soldering is suitable for 1206 size models.

Average Pre-Arcing Time vs. Current Curves



Minimum I^2t vs. t Curves

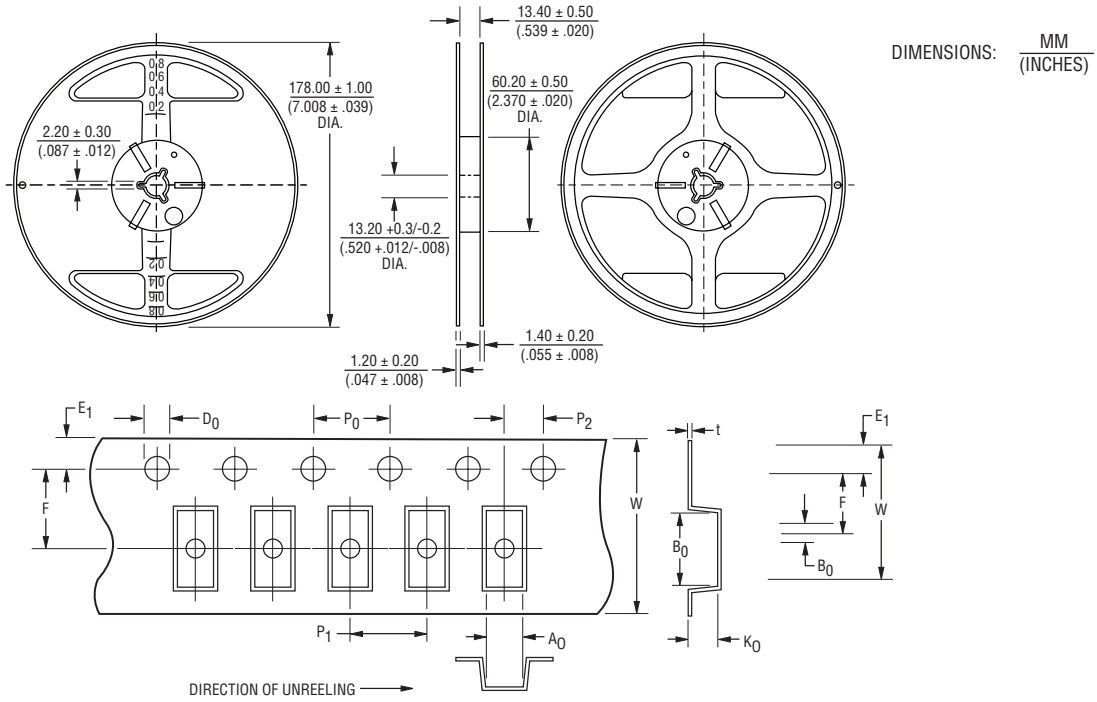


SF-1206SxxxM Series Tape and Reel Specifications

BOURNS®

Tape Dimensions	SF-1206SxxxM Series per EIA 481-2
W	8.00 ± 0.10 (.315 ± .004)
P_0	4.0 ± 0.10 (.157 ± .004)
P_1	4.0 ± 0.10 (.157 ± .004)
P_2	2.0 ± 0.05 (.079 ± .002)
A_0	1.80 ± 0.10 (.071 ± .004)
B_0	3.50 ± 0.10 (.138 ± .004)
F	3.50 ± 0.05 (.138 ± .002)
E_1	1.75 ± 0.10 (.069 ± .004)
D_0 DIA.	1.50 + 0.10 (.059 + .004)
K_0	1.10 + 0.10 (.043 + .004)
T	0.23 ± 0.20 (.009 ± .008)

PACKAGING: Plastic tape, 3,000 pcs. per reel



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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Surface Mount Fuses ***category:***

Click to view products by Bourns ***manufacturer:***

Other Similar products are found below :

FHC20402ADTP NFVC6125S0R50TRF SFT-125MA TF16SN2.00TTD TF16SN3.15TTD TR/3216LR-500MA CCP2B20TTE FCC16501ABTP FHC16322ADTP 0308.250UR 0308.375UR 0308.500UR 030801.5UR FCC16202ABTP 03081.25UR F0603G0R03FNTR SKY87604-11 3404.0110.22 SEF 0.375A 125V (G) 1211015 S1206-F-3.0A 9321315278 S0603-F-4.0A SMT1315AP 0603TD-4A 1240FH-30A R451003.L R451.500L R451001.L 3-103-119 3-103-123 3-103-127 0154002.DRL 0154008.DRL 0154.500DRL 189140.1,25 189140.0,8 189140.0,4 189140.0,63 189140.0,25 0468003.WR 0494001.NRHF 0494002.NRHF 0494003.NRHF 049402.5NRHF 049403.5NRHF 0494.250NRHF 0494.375NRHF 0494.500NRHF CF06V3T1R60