

SingIFuse™ SF-2410F-W Series Features

- Single blow fuse for overcurrent protection
- 6125 (EIA 2410) footprint
- Fast acting fuse
- UL 248-14 compliant
- RoHS compliant* and halogen free**
- Wire core SMD design
- Surface mount packaging for automated assembly

SF-2410F-W Series - Fast Acting Wire Core Surface Mount Fuses

Clearing Time Characteristics for Series

% of Current Rating	Clearing Time at 25 °C	
	Min.	Max.
100 %	4 hours	—
200 %	0.01 seconds	20 seconds

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) ****	Certifications
						cUL: E198545
SF-2410F1200W-2	12.0	0.0053	65 VAC 65 VDC	50 A @ 65 VAC 50 A @ 65 VDC 300 A @ 32 VDC	49.69	✓
SF-2410F1500W-2	15.0	0.0038			103.5	✓
SF-2410F2000W-2	20.0	0.0034		50 A @ 65 VAC 100 A @ 65 VDC 300 A @ 32 VDC	127.5	✓

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

Reliability Testing

No.	Test	Requirement	Test Condition	Test Reference
1	Reflow and bend	DCR change ≤ 20 % (≤ 10 % for ≤1 A) No mechanical damage	3 reflows at 245 °C followed by a 2 mm bend	Refer to STP document
2	Solderability	Minimum 90 % coverage	One dip at 245 °C for 5 seconds	MIL-STD-202 Method 208
3	Soldering heat resistance	DCR change ≤ 20 % (≤ 10 % for ≤1 A) New solder coverage ≤ 75 %	One dip at 260 °C for 10 seconds	MIL-STD-202 Method 210
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	Thermal Shock	DCR change ≤ ±10 % No mechanical damage	100 cycles between -65 °C and +125 °C	MIL-STD-202 Method 107
9	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 +25 °C	Refer to STP document

*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.

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

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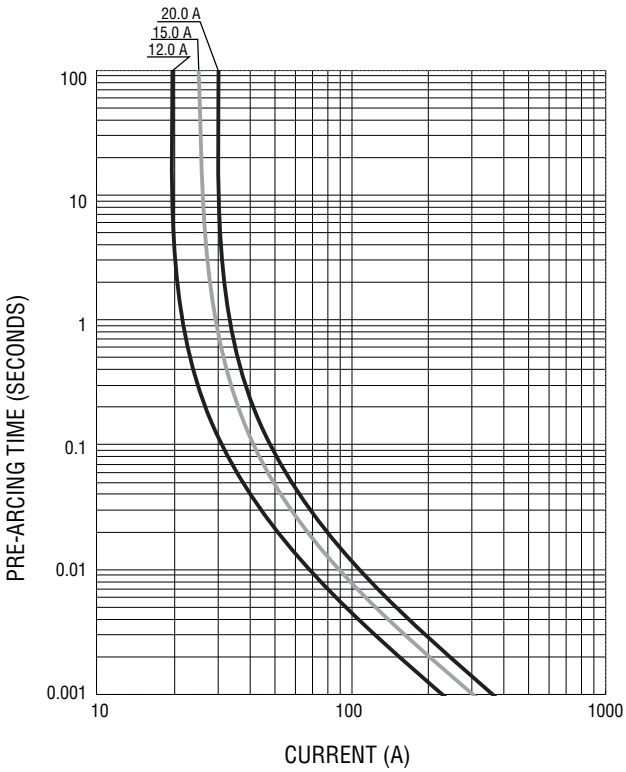
SingIFuse™ SF-2410F-W Series Applications

- LCD / LED TVs
- White goods
- PC servers
- LCD monitors
- DC/DC converters
- DC/AC inverters
- Notebooks / ultrabooks
- Telecom systems
- Chargers

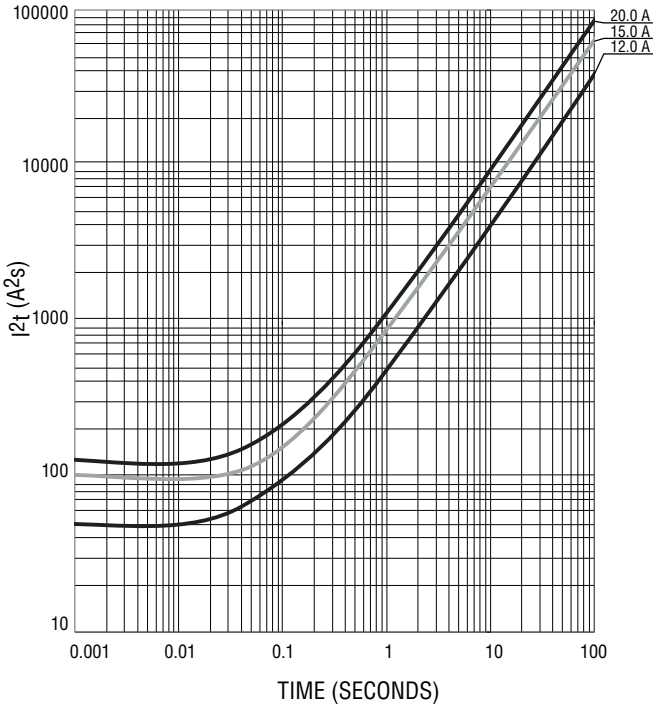
SF-2410F-W Series – Fast Acting Wire Core Surface Mount Fuses

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Average Pre-Arcing Time vs. Current Curves



Average I^2t vs. t Curves



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

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SF-2410F-W Series – Fast Acting Wire Core Surface Mount Fuses

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Typical Part Marking

Represents total content. Layout may vary.



RATED CURRENT (A)
X= 12.0
Y = 15.0
Z = 20.0

How to Order

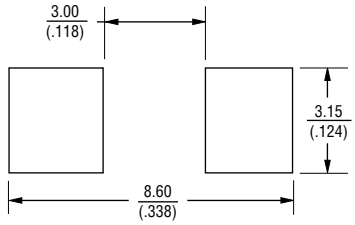
SF - 2410 F 1200 W - 2

- SinglFuse™ Product Designator
- SMD Footprint
  2410 = 6125 (EIA 2410) size
- Fuse Blow Type
  F = Fast Acting
- Rated Current
  1200 ~ 2000 (12.0 A ~ 20.0 A)
- Structure Type
  W = Wire Core
- Packaging Type
  - 2 = Tape & Reel

Packaging

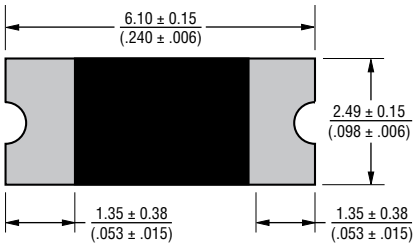
Reel Dimension	7-inch Tape and Reel
Specification	EIA 481-2
Quantity	2,000 pieces
Packaging Code	-2

Recommended Pad Layout

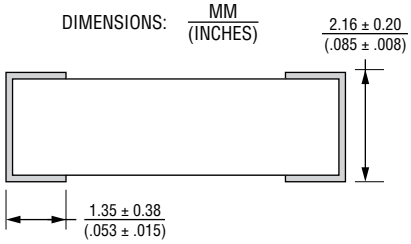


DIMENSIONS: MM / (INCHES)

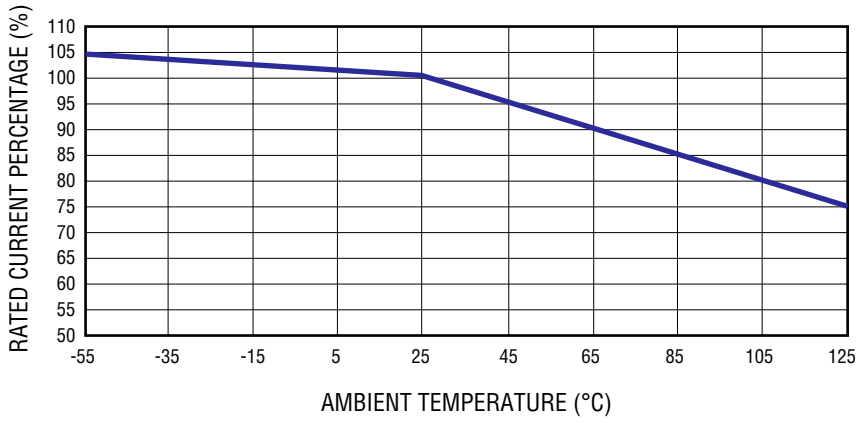
Product Dimensions



DIMENSIONS: MM / (INCHES)

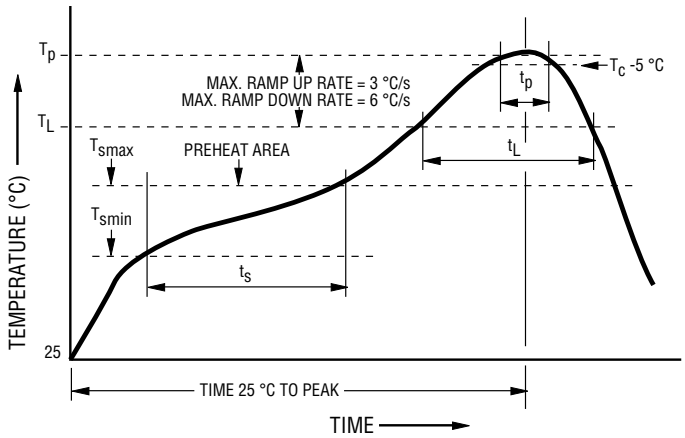


Current Rating Thermal Derating Curve



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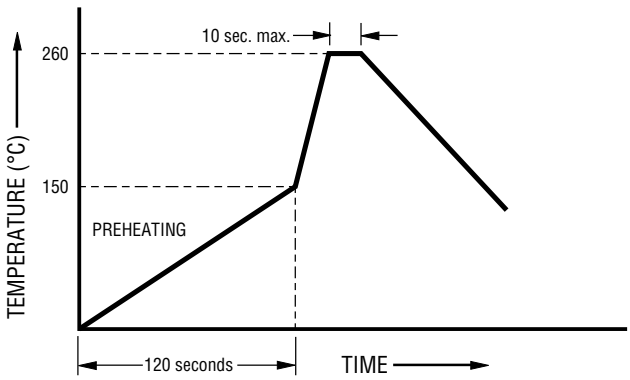
Solder Reflow Recommendations



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 (Tp) is defined as a supplier minimum and a user maximum.

Recommended Temperature Profile for Wave Soldering



Wave soldering is suitable for 2410 size models.

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