



# **Chip™ Fuses** 1608FF Series, Fast Acting

## Description

- · Small, fast acting surface mount fuse
- Chip fuses utilize thick and thin metal film technologies for superior fusing action and enhanced reliability
- Excellent short-circuit performance and environmental integrity
- End terminations are over-plated with nickel and tin-lead
- Solder-free design provides excellent temperature cycling characteristics
- Heat and shock tolerant

ELECTRICAL CHARACTERISTICS				
% of Amp Rating	Opening Time			
100%	4 Hours Minimum			
250%	5 Seconds Maximum			

## **Agency Information**

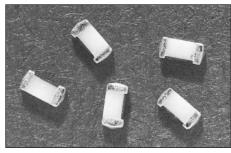
- UL Recognition Guide & File numbers: JDYX2 & E19180.
- CSA Certification Record No: 053787 C 000 & Class No: 1422 30.

#### **Environmental Data**

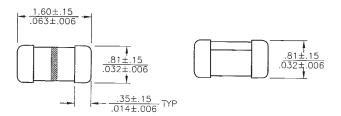
- Thermal Shock: MIL-STD-202, Method 107, Test Condition B (-65° C to +125° C), 1000 cycles, Fuses soldered to FR-4 glass-epoxy circuit board
- Vibration: MIL-STD-202, Method 204, Test Condition C (55 to 2000 Hz, 10G)
- Moisture Resistance: MIL-STD-202, Method 106, 10 day cycle
- Solder Leach Resistance and Terminal Adhesion: EIA-576 (30 seconds submersion in 260°C tin-lead)
- Solderability: ANSI/J-STD-002, Test B

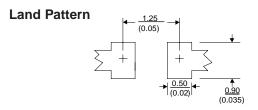
## Ordering

Specify product code and packaging code



**Dimensions** mm/(inches) Drawing Not to Scale





### **Soldering Method**

Wave Solder: 260°C, 10 sec max.
Infrared Reflow: 260°C, 30 sec max.

SPECIFICATIONS							
Product Code	Voltage Rating (DC)	Interrupting Rating* 24V DC	Resistance (ohms)** Typ.	Typical Melt I²t†	Typical Voltage Drop (V)‡	Color Code Cover / Stripe	
1608FF-250mA	24V	35A	3.35	0.000067	0.90	Green	
1608FF-375mA	24V	35A	1.75	0.00015	0.80	Green / White	
1608FF-500mA	24V	35A	1	0.00055	0.54	Blue	
1608FF-750mA	24V	35A	0.51	0.00132	0.45	Blue / White	
1608FF-1A	24V	35A	0.14	0.0022	0.18	Brown	
1608FF-1.5A	24V	35A	0.068	0.014	0.12	Brown / White	
1608FF-2A	24V	35A	0.042	0.037	0.11	Black	
1608FF-2.5A	24V	35A	0.027	0.07	0.09	Black / White	
1608FF-3A	24V	35A	0.023	0.095	0.087	Violet	
1608FF-3.5A	24V	35A	0.016	0.185	0.08	Violet / White	
1608FF-4A	24V	35A	0.015	0.270	0.08	Yellow	

<sup>\*</sup> DC Interrupting Rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)

\*\* DC Cold Resistance (Measured at ≤10% of rated current)
† Typical Melting I²t (Measured with a battery bank at rated DC voltage, 10x-rated current, time constant of calibrated circuit less than 50 microseconds)

<sup>†</sup> Typical Melting I't (Measured with a battery bank at rated DC voltage, 10x-rated current, time constant of calibrated circuit less than 50 microseconds) † Typical Voltage Drop (Measured at rated current after temperature stabilizes)

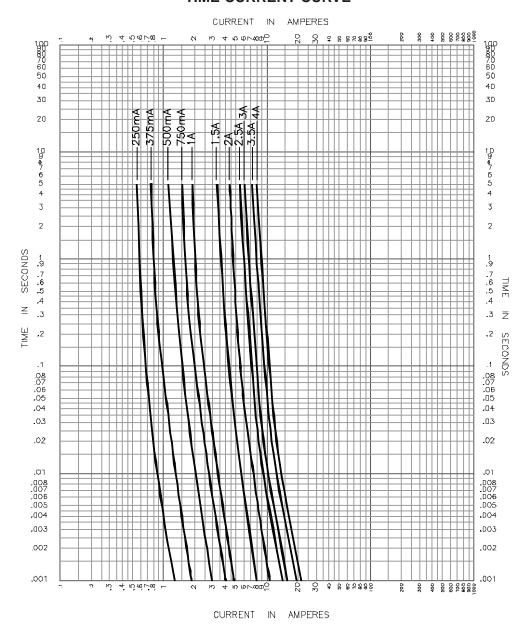
The fuses are randomly oriented in the carrier tape. 1608FF series fuses mounted with random orientation on circuit boards does not affect fuse performance.

Device designed to carry rated current for four hours minimum. An operating current of 80% or less of rated current is recommended, with further derating required at elevated ambient temperatures.





## **TIME CURRENT CURVE**



PACKAGING CODE				
Packaging Code	Description			
SP	50 piece sample pack			
TR	3,000 pieces of fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard 481			



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Visit us on the Web at www.cooperET.com

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