



# **Chip**<sup>™</sup> **Fuses** 3216FF Series, Fast Acting

# **Description**

- RoHS Compliant
- · Surface mount fuse, fast acting
- Rapid interruption of excessive current
- Compatible with reflow and wave solder
- Excellent environmental integrity
- · Ampere rating marked and oriented facing up in carrier
- Solder-free design provides excellent temperature cycling characteristics
- Heat and shock tolerant

ELECTRICAL CHARACTERISTICS						
Ampere Rating	% of Amp Rating	Opening Time				
250mA - 7A	100%	4 Hours Minimum				
1.25A - 3A	200%	60 Seconds Maximum				
250mA - 3A	250%	5 Second Maximum				
4A - 7A	350%	1 Second Maximum				

#### **Agency Information**

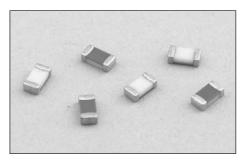
- UL Recognition Guide & File numbers: JDYX2 & E19180.
- CSA Component Acceptance: 053787 C 000 & Class No: 1422 30.

#### **Environmental Data**

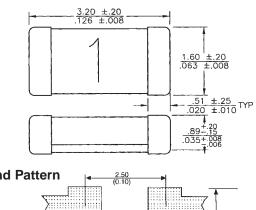
- Thermal Shock: MIL-STD-202, Method 107, Test Condition B
- Vibration: MIL-STD-202, Method 204, Test Condition C
- Moisture Resistance: MIL-STD-202, Method 106, 10 day cycle
- Solderability: ANSI/J-STD-002, Test B

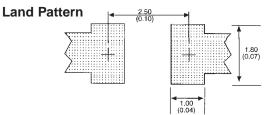
#### **Ordering**

 Specify packaging code and product code (i.e. TR/3216FF250-R)



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





#### **Soldering Method**

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

SPECIFICATIONS							
Product Code	Current Rating		tage ting DC	Interrupting Rating* AC/DC	Resistance (ohms)** Typ.	Typical Melt l²t† DC	Typical Voltage Drop (V)‡
3216FF250-R	250mA	32 V	63 V	50 A	3.50	0.000084	1.4
3216FF375-R	375mA	32 V	63 V	50 A	1.75	0.0002	0.73
3216FF500-R	500mA	32 V	63 V	50 A	0.98	0.0019	0.66
3216FF750-R	750mA	32 V	63 V	50 A	0.75	0.00095	0.63
3216FF1-R	1A	32 V	63 V	50 A	0.219	0.007	0.20
3216FF1.5-R	1.5A	32 V	63 V	50 A	0.119	0.029	0.18
3216FF2-R	2A	32 V	63 V	50 A	0.066	0.049	0.16
3216FF2.5-R	2.5A	32 V	63 V	50 A	0.046	0.112	0.14
3216FF3-R	3A	32 V	63 V	50 A	0.036	0.165	0.13
3216FF4-R	4A	32 V	32 V	50 A	0.018	0.189	0.11
3216FF4.5-R	4.5A	32 V	32 V	50 A	0.016	0.328	0.10
3216FF5-R	5A	32 V	32 V	50 A	0.014	0.619	0.09
3216FF6.5-R	6.5A	32 V	32 V	50 A	0.0085	3.21	0.076
3216FF7-R	7A	32 V	32 V	50 A	0.0085	3.53	0.078

- \* AC Interrupting Rating (Measured at rated voltage with a unity power factor); DC Interrupting Rating (Measured at rated 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, not to exceed IR, time constant of calibrated circuit less than 50 microseconds) (6.5A & 7A measured at interrupting rating)
- ‡ Typical Voltage Drop (Measured at rated current after temperature stabilizes)
- It is recommended that fuses be mounted with ceramic (white) side facing up.

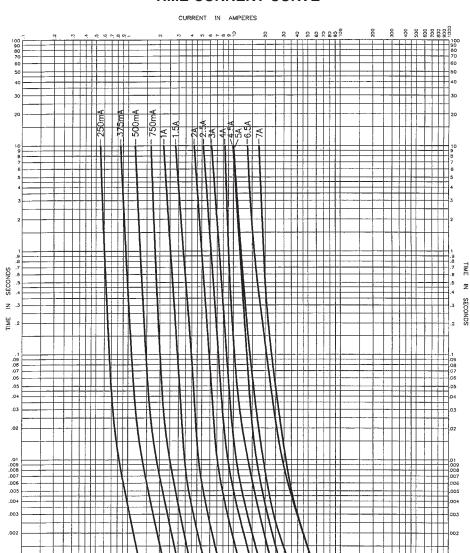
Device designed to carry rated current for four hours minimum. An operating current of 80% or less of rated current is recommended, with further derating required at elevated ambient temperatures.





# **Chip™ Fuses** 3216FF Series, Fast Acting

### TIME CURRENT CURVE



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

CURRENT IN AMPERES



Visit us on the web at: www.CooperET.com

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