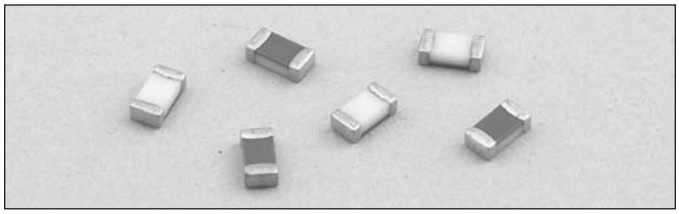
COOPER Bussmann

Chip™ Fuses

3216FF Series, Fast-Acting



Description

- Fast-acting surface mount fuse
- Ratings up to 30 amps
- Excellent temperature and cycling characteristics
- Compatible with reflow and wave solder

Agency Information

- UL Recognition Guide JDYX2 & File E19180.
- CSA Component Acceptance: 053787 C 000 & Class No: 1422 30.
- c UL us Recognition File: E19180, Guide JDYX2/JDYX8

Environmental Data

- Thermal Shock: MIL-STD-202, Method 107, Test Condition B (-65°C to 125°C)
- Vibration: MIL-STD-202, Method 204, Test Condition C (55Hz - 2kHz, 10G)
- Moisture Resistance: MIL-STD-202, Method 106, 10 day cycle
- Solderability: ANSI/J-STD-002, Test B
- Additional resistance to solder heat teast: MIL-STD-202G Method 210F Condition A
- Operating Temperature: -55ºC to 125ºC

Ordering

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

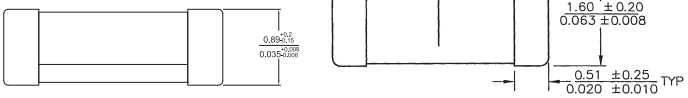
Soldering Method

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

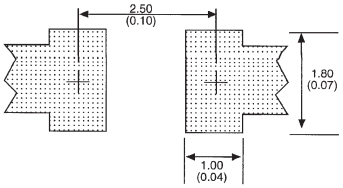
Electrical Characteristics		
Amp Rating	**% of Amp Rating**	**Opening Time**
250mA - 30A	100%	4 Hrs. Min.
1.25A - 3A	200%	60 Sec. Max.
250mA - 3A	250%	5 Sec. Max.
4A - 7A	350%	1 Sec. Max.
10A - 30A	350%	5 Sec. Max.

Dimension - mm/inches

Drawing Not to Scale



Recommended Pad Layout - mm (in)



Specifications

Part Number	Volt Ratings Vac	Volt Ratings Vdc	Interrupting Rating* (amps) AC/DC	Typical DC Cold Resistance (Ω)**	Typical Melt I²t (A²S) DC***	Typical Voltage Drop (V)†	Agency Approvals UR	Agency Approvals CSA	Agency Approvals cURus
3216FF250-R	32	63	50	3.5000	0.00038	1.40	X	X	
3216FF375-R	32	63	50	1.7500	0.00077	0.73	X	X	
3216FF500-R	32	63	50	0.9800	0.00190	0.66	X	X	
3216FF750-R	32	63	50	0.5400	0.0053	0.63	X	X	
3216FF1-R	32	63	50	0.2190	0.030	0.20	X	X	
3216FF1.25-R	32	63	50	0.1700	0.046	0.18	X	X	
3216FF1.5-R	32	63	50	0.1190	0.093	0.18	X	X	
3216FF2-R	32	63	50	0.0660	0.126	0.16	X	X	
3216FF2.5-R	32	63	50	0.0460	0.260	0.14	X	X	
3216FF3-R	32	63	50	0.0360	0.275	0.13	X	X	
3216FF4-R	32	32	50	0.0180	0.337	0.11	X	X	
3216FF4.5-R	32	32	50	0.0160	0.405	0.10	X	X	
3216FF5-R	32	32	50	0.0140	0.534	0.09	X	X	
3216FF6.5-R	32	32	50	0.0086	2.294	0.076	X	X	
3216FF7-R	32	32	50	0.0070	3.623	0.078	X	X	
3216FF10-R		24	150	0.0045	2.0	0.062	X		X
3216FF12-R		24	150	0.0039	7.0	0.070	X		X
3216FF15-R		24	150	0.0031	25.5	0.066	X		X
3216FF20-R		24	150	0.0018	48.6	0.060	X		X
3216FF25-R		24	250	0.0014	32.0	0.057	X		X
3216FF30-R		24	300	0.0012	43.0	0.068	X		X

* 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

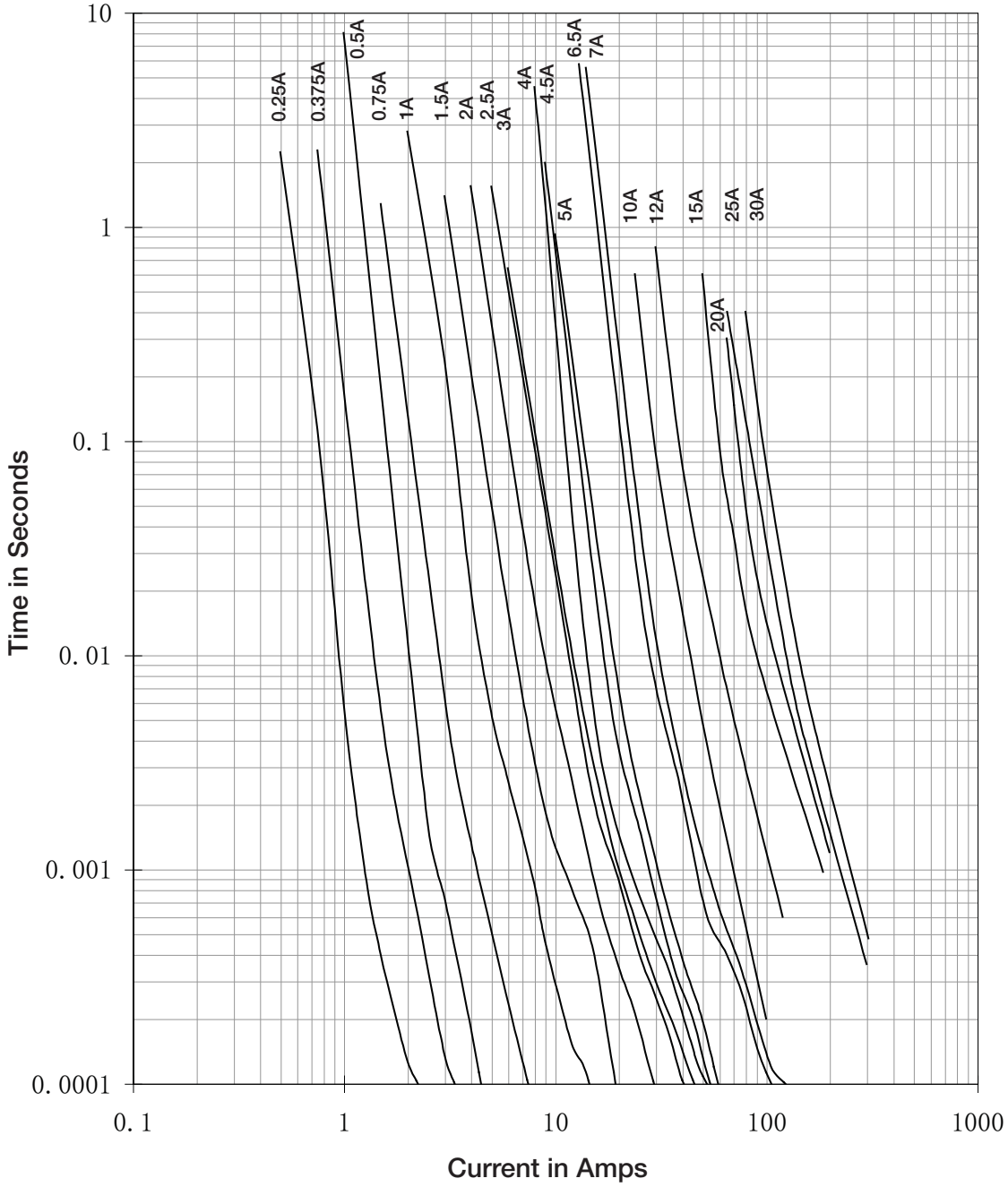
**Typical DC Cold Resistance measured at 10% of rated current

***Typical Melting I^2t 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 - 30A 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.

Time-Current Curve



Packaging	
Packaging Code Prefix	**Description**
TR	3000 fuses on 8mm tape-and-reel on a 7 inch (178mm) reel per EIA Standard RS481