BUSSMANN electronic fuses

COOPER Bussmann

Chip™ Fuses

3216FF Series, Fast Acting

Description

- 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
- 100% tin (lead free) plating option available

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

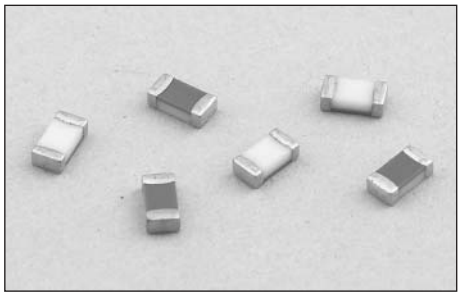
- UL Recognition Guide & File numbers: JDYX2 & E19180.
- CSA Component Acceptance: 053787 C 000 & Class No: 1422 30.

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

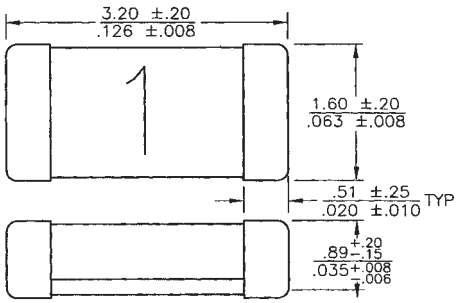
Ordering

- Specify product code and packaging code

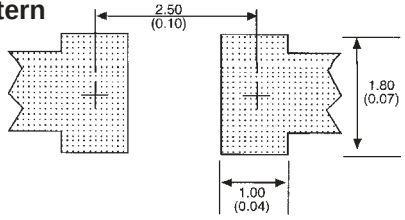


Dimensions mm/(inches)

Drawing Not to Scale



Land Pattern



Soldering Method

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

SPECIFICATIONS

Product Code	Voltage Rating AC	Voltage Rating DC	Interrupting Rating* AC/DC	Resistance (ohms)** Typ.	Typical Melt I²t† DC	Typical Voltage Drop (V)‡
3216FF-250mA	32 V	63 V	50 A	3.50	0.000084	1.4
3216FF-375mA	32 V	63 V	50 A	1.75	0.0002	0.73
3216FF-500mA	32 V	63 V	50 A	0.98	0.0019	0.66
3216FF-750mA	32 V	63 V	50 A	0.75	0.00095	0.63
3216FF-1A	32 V	63 V	50 A	0.219	0.007	0.20
3216FF-1.5A	32 V	63 V	50 A	0.119	0.029	0.18
3216FF-2A	32 V	63 V	50 A	0.066	0.049	0.16
3216FF-2.5A	32 V	63 V	50 A	0.046	0.112	0.14
3216FF-3A	32 V	63 V	50 A	0.036	0.165	0.13
3216FF-4A	32 V	32 V	50 A	0.018	0.189	0.11
3216FF-4.5A	32 V	32 V	50 A	0.016	0.328	0.10
3216FF-5A	32 V	32 V	50 A	0.014	0.619	0.09
3216FF-6.5A	32 V	32 V	50 A	0.0085	3.21	0.076
3216FF-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)

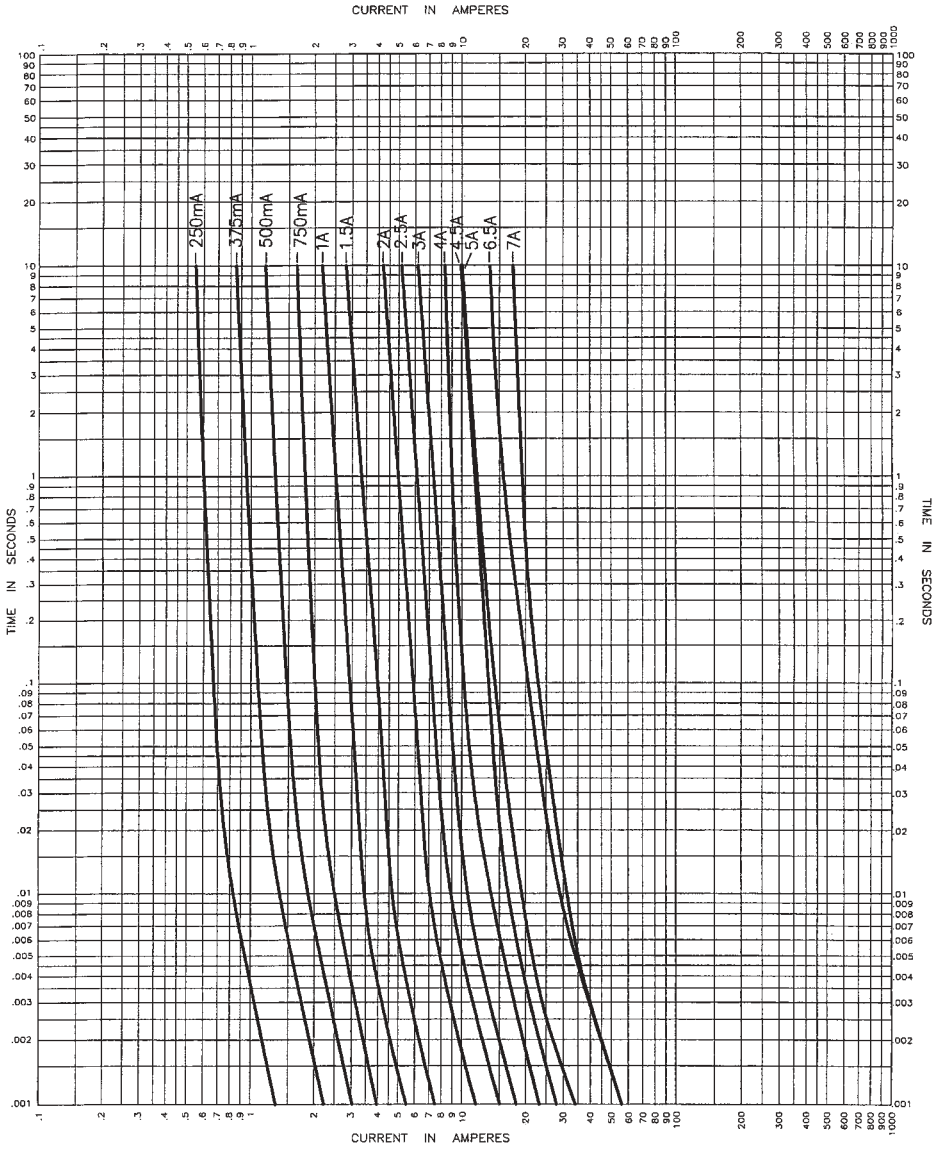
† Typical Melting I²t (Measured with a battery bank at rated DC voltage, 10x-rated current, not to exceed IR, time constant of calibrated circuit less than 50 microseconds) (6.5A & 7A measured at interrupting rating)

‡ 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.

TIME CURRENT CURVE



OPTION CODE	
Option Code	**Description**
T	100% tin plating

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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