



328 Series, Lead-Free 3AB, High Surge Withstand Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	T 50260582 01	21A
	E10480	21A

Description

The 328 Series is a 300VAC rated, 10kA surge withstand, 6.3x32mm ceramic fuse, designed in accordance to UL 248-1 and UL 248-14 Standards, provided in cartridge and axial-lead packages.

Features

- High surge withstand capability
 - 20 hits of 10kA 8/20 μ s surge
 - Meets ANSI/IEEE C62.41.2, Category C-High
 - Meets US Dept of Energy (DOE) MSSLC/CBEA street lighting and parking lot lighting, elevated level
- Small form factor (6.3x32mm) with cartridge and axial-lead package options
- Breaking capacity: 200A@300VAC, 200A@100VDC
- Lead-free, RoHS compliant and halogen-free
- Compliant with UL 248-1 and UL 248-14
- Operating temperature: -55°C to 125°C



Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	4 hours, minimum
200%	120 sec., maximum

Applications

Commercial and outdoor LED luminaries
 Outdoor electronics and electrical equipment.
 Surge protection for telecom application.

Electrical Characteristic by Item

Amp Rating (A)	Voltage Rating (VAC)	Interrupting Rating	Surge Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Agency Approvals	
							
21	300	200A@300VAC 200A@100VDC	1.2/50 - 8/20 μ s, 20kV/10kA 20 hits	0.0042	4,800	X	X

Additional Information



Datasheet



Resources



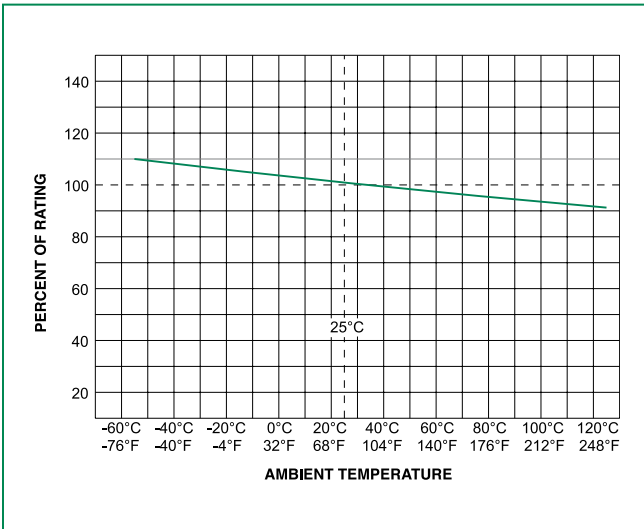
Samples



Accessories

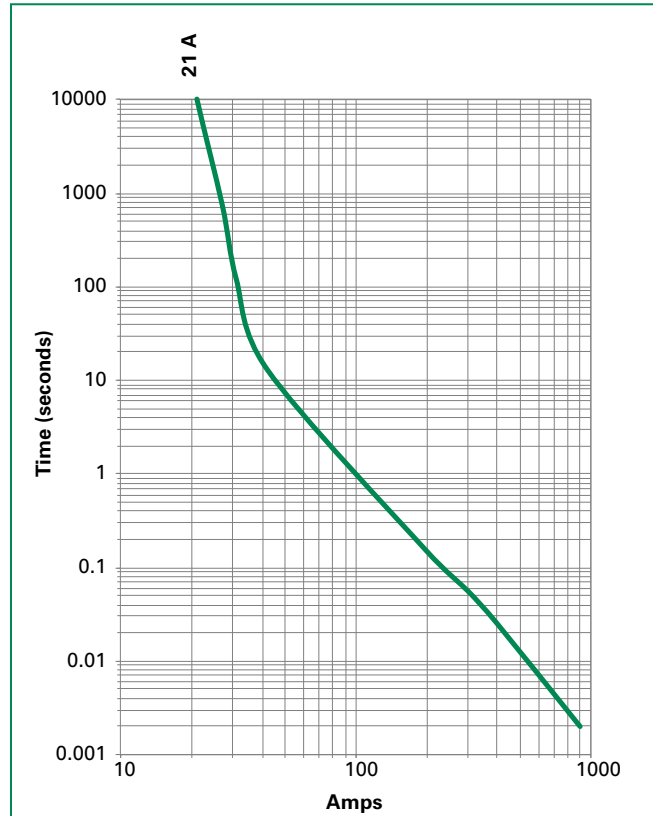
For recommended fuse accessories for this product series, see '[Recommended Accessories](#)' section.

Temperature Re-rating Curve

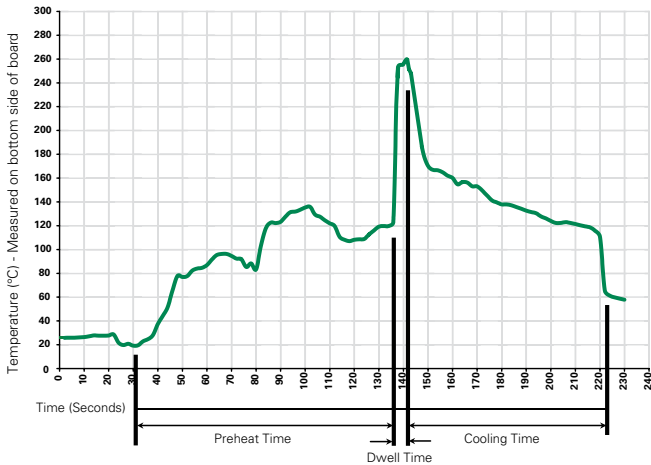


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature) (Typical Industry Recommendation)	
Temperature Minimum:	100°C
Temperature Maximum:	150°C
Preheat Time:	60–180 seconds
Solder Pot Temperature:	260°C Maximum
Solder Dwell Time:	2–5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C ±5°C
Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.

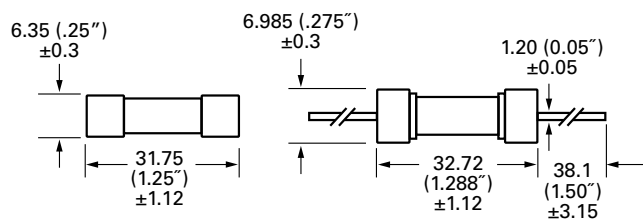
Product Characteristics

Materials	Body: Ceramic Cap: Nickel-plated brass Leads: Tin-plated copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 Method 208
Product Marking	Cap1: Brand logo, current and voltage ratings Cap2: Series and agency approval marks

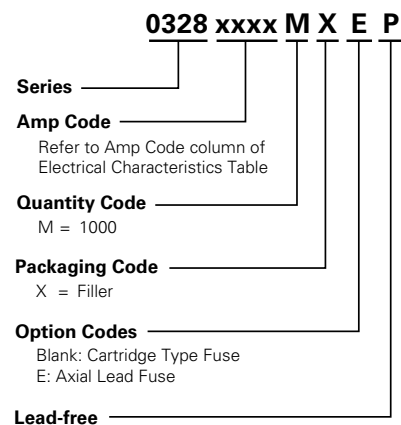
Operating Temperature	-55°C to +125°C
Thermal Shock	MIL-STD-202, Method 107, Test Condition B: (5 cycles -65°C to +125°C)
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A. High RH (95%) and elevated temperature (40°C) for 240 hours.
Salt Spray	MIL-STD-202, Method 101, Test Condition B

Dimensions

Measurements displayed in millimeters (inches).



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
328 Series				
Bulk	N/A	1000	MX	N/A

Recommended Accessories

Accessory Type	Series	Description	Max Application Voltage	Max Application Amperage
Block	354	Low Profile OMNI-BLOK® Fuse Block	600	30
	359	High Current Screw Terminal Fuse Block		30
Clip	122	High Current Traditional PC Board Fuse Clip	1000	30

- Notes:
- Do not use in applications above rating.
 - Please refer to fuseholder data sheet for specific re-rating information.
 - Please contact factory for applications greater than the max voltage and amperage shown.

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