

### 314/324 Series Lead-free 3AB, Fast-Acting Fuse



#### Description

The 3AB Fast-Acting Fuse with ceramic body construction permits higher interrupting ratings and voltage ratings. Ideal for applications where high current loads are expected.

#### Features

- In accordance with UL Standard 248-14
- Available in cartridge and axial lead format and with various forming dimensions
- RoHS compliant and Lead-free

#### Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

#### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	375mA - 15A
	LR 29862	375mA - 20A
	E10480	15A* - 40A
	NBK 030805 - E10480A-F NBK 260106 - JP1021A/B	375mA - 30A
	SU05001 - 6001/6002/6003/7006/8002/8003	375mA - 30A
		375mA - 30A

#### Electrical Characteristics for Series

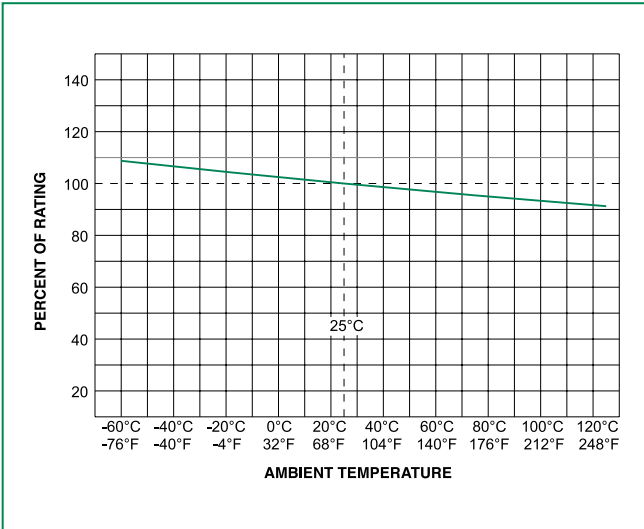
% of Ampere Rating	Ampere Rating	Opening Time
100%	1/8 - 40	4 hours, Minimum
135%	1/8 - 30	1 hour, Maximum
200%	1/8 - 12	15 secs., Maximum
	15 - 30	30 secs., Maximum
250%	40	30 secs., Maximum

#### Electrical Specification by Item

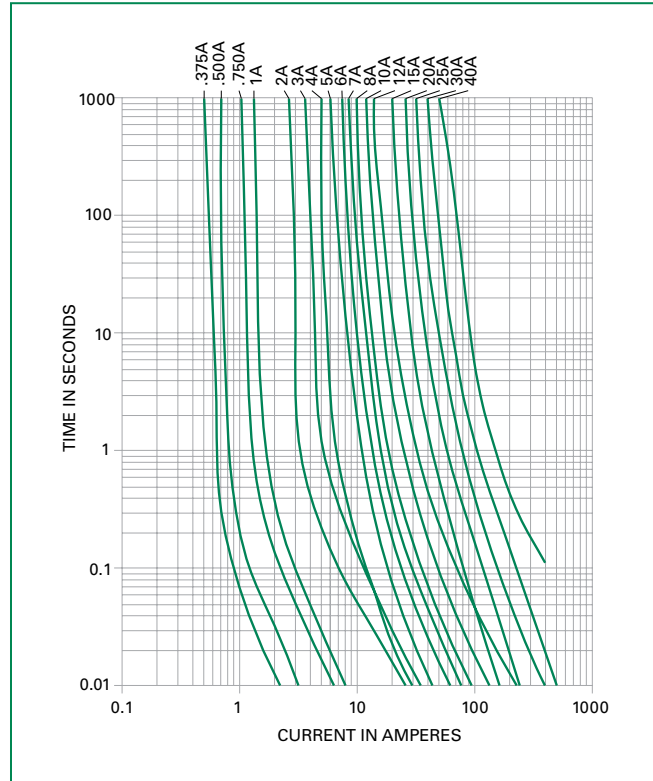
Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals							
.375	0.375	250	35 A @ 250 VAC 10 kA @ 125 VAC 10 kA @ 125 VDC	0.820	0.050	x	x				x		
.500	0.5	250		0.500	0.115	x	x				x		
.750	0.75	250		0.250	0.466	x	x				x		
001.	1	250	100 A @ 250 VAC 10 kA @ 125 VAC 10 kA @ 125 VDC	0.189	0.690	x	x				x	x	
002.	2	250		0.0700	11.0	x	x				x	x	
003.	3	250		0.0432	14.6	x	x	x			x	x	
004.	4	250		0.0470	10.4	x	x	x			x	x	
005.	5	250		0.0300	26.0	x	x	x			x	x	
006.	6	250		0.0240	45.0	x	x	x			x	x	
007.	7	250		0.0187	71.0	x	x	x			x	x	
008.	8	250		0.0153	105	x	x	x			x	x	
010.	10	250		0.0105	206	x	x	x			x	x	
012.	12	250		0.00760	570	x	x	x			x	x	
015.	15	250		0.00505	292	x	x	x			x	x	
015.*	15	280		0.00505	292						x	x	
020.	20	250		1000 A @ 250 VAC 200 A @ 300 VAC 10 kA @ 125 VAC 10 kA @ 125 VDC	0.00355	631		x	x	x	x	x	x
020.*	20	280			0.00355	631					x		x
025.	25	250		100 A @ 250 VAC 1000A @ 75 VDC 400A @ 125 VAC 400 A @ 125 VDC	0.00235	1450			x	x	x	x	x
025.**	25	280	0.00235		1450				x	x	x	x	
030.	30	250	0.00182		2490			x	x	x	x	x	
040.	40	250	1000 A @ 250 VAC 400 A @ 150 VDC	0.0014	22925				x			x	

\* 350A@280VAC interrupting rating available for 15A and 20A. \*\* 50A@280VAC for 25A. Add suffix '280'. Example: 0324020.MX280P  
I<sup>2</sup>t test at 10x rated current

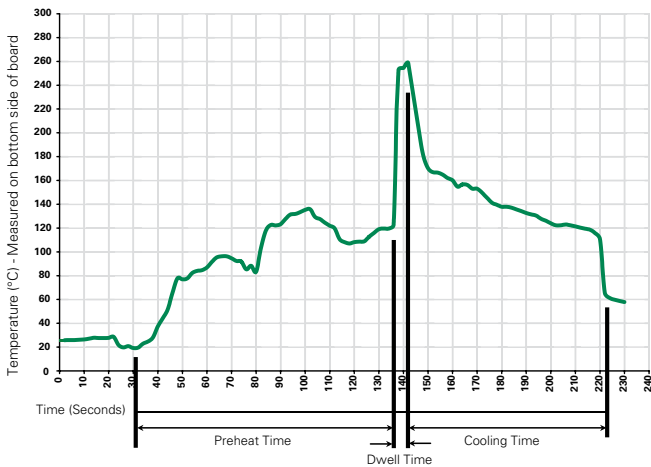
### Temperature Derating Curve



### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<b>Preheat:</b> (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
<b>Solder Pot Temperature:</b>	260° C Maximum
<b>Solder Dwell Time:</b>	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.**

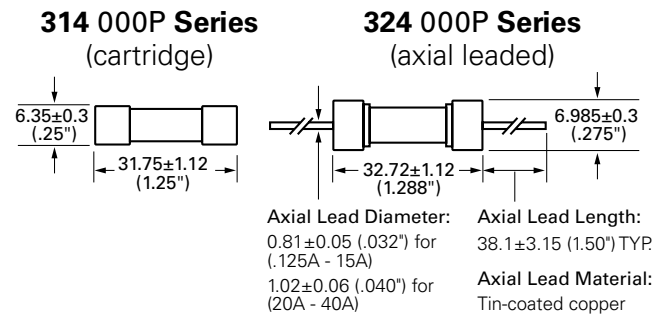
### Product Characteristics

<b>Materials</b>	<b>Body:</b> Ceramic <b>Cap:</b> Nickel-plated Brass <b>Leads:</b> Tin-plated Copper
<b>Terminal Strength</b>	MIL-STD-202G, Method 211A, Test Condition A
<b>Solderability</b>	Reference IEC 60127 Second Edition 2003-01 Annex A
<b>Product Marking</b>	<b>Cap1:</b> Brand logo, current and voltage ratings <b>Cap2:</b> Series and agency approval marks

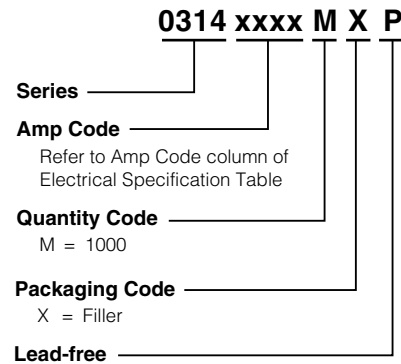
<b>Operating Temperature</b>	-55°C to +125°C
<b>Thermal Shock</b>	MIL-STD-202G, Method 107G, Test Condition B (5 cycles, -65°C to +125°C)
<b>Vibration</b>	MIL-STD-202G, Method 201 A
<b>Humidity</b>	MIL-STD-202G, Method 103B, Test Condition A (High RH (95%) and Elevated temperature (40°C) for 240 hours)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

### Dimensions

Measurements displayed in millimeters (inches)



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>314 Series</b>				
Bulk	N/A	5	VX	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MX52L	N/A
Bulk	N/A	1000	MXCC	N/A
Bulk	N/A	1000	MX52LE	N/A
<b>324 Series</b>				
Bulk	N/A	5	VX	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MX280	N/A
Bulk	N/A	1000	MX52	N/A
Bulk	N/A	1000	MXF24	N/A

### Additional Information



**Datasheet**  
**314 Series**



**Resources**  
**314 Series**



**Samples**  
**314 Series**



**Datasheet**  
**324 Series**



**Resources**  
**324 Series**



**Samples**  
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