

# RoHS

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

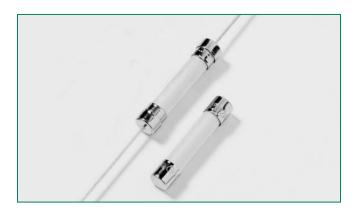












# **Description**

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

#### **Agency Approvals**

Agency	Agency File Number	Ampere Range
(I)	E10480	375mA - 15A
<b>(</b>	LR 29862	375mA - 20A
<i>7</i> 12	E10480	15A* - 40A
PS	NBK 030805 - E10480A-F NBK 260106 - JP1021A/B	375mA - 30A
	SU05001 - 6001/6002/6003/7006/8002/8003	375mA - 30A
<b>(</b> E		375mA - 30A

#### **Applications**

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

#### **Electrical Characteristics for Series**

% of Ampere Rating	Ampere Rating	OpeningTime		
100%	1/8 - 40	4 hours, Minimum		
135%	1/8 - 30	1 hour, Maximum		
200%	1/8 - 12	15 secs., Maximum		
200 70	15 - 30	30 secs., Maximum		
250%	40	30 secs., Maximum		

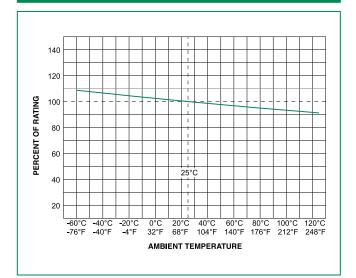
#### **Electrical Specification by Item**

	Ampere	Voltage		Nominal	Nominal	Agency Approvals					
Amp Code	Rating (A)	Rating (V)	Interrupting Rating	Cold Resistance (Ohms)	Melting I <sup>2</sup> t (A <sup>2</sup> sec)	(Î)	<b>(</b>		<b>71</b>	PS	Œ
.375	0.375	250	35 A @ 250 VAC	0.820	0.050	Х	X				Х
.500	0.5	250	10 kA @ 125 VAC	0.500	0.115	×	×				×
.750	0.75	250	10 kA @ 125 VDC	0.250	0.466	X	×				×
001.	1	250	100 A @ 250 VAC	0.189	0.690	Х	×			×	×
002.	2	250	10 kA @ 125 VAC	0.0700	11.0	×	×			X	×
003.	3	250	10 kA @ 125 VDC	0.0432	14.6	Х	×	Х		X	×
004.	4	250		0.0470	10.4	×	×	×		×	X
005.	5	250		0.0300	26.0	×	×	×		×	×
006.	6	250		0.0240	45.0	×	×	×		×	×
007.	7	250	750 A @ 250 VAC	0.0187	71.0	X	×	×		×	×
008.	8	250	10 kA @ 125 VAC	0.0153	105	×	×	×		×	×
010.	10	250	10 kA @ 125 VDC	0.0105	206	×	×	×		×	×
012.	12	250		0.00760	570	×	×	×		X	×
015.	15	250		0.00505	292	X	×	×		×	×
015.*	15	280		0.00505	292				×		×
020.	20	250	1000 A @ 250 VAC 200 A @ 300 VAC	0.00355	631		×	×	×	×	×
020.*	20	280	10 kA @ 125 VAC 10 kA @ 125 VDC	0.00355	631				×		×
025.	25	250	100 A @ 250 VAC	0.00235	1450			×	×	×	x
025.**	25	280	1000A @ 75 VDC 400A @ 125 VAC 400 A @ 125 VDC	0.00235	1450				×		×
030.	30	250		0.00182	2490			×	×	×	×
040.	40	250	1000 A @ 250 VAC 400 A @ 150 VDC	0.0014	22925				x		Х

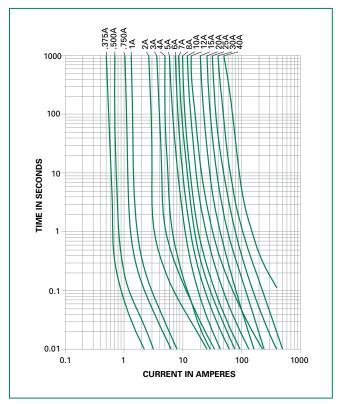
<sup>\* 350</sup>A@280VAC interrupting rating available for 15A and 20A. \*\* 50A@280VAC for 25A. Add suffix '280'. Example: 0324020.MX280P. I2t test at 10x rated current



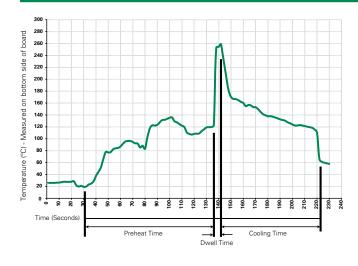
#### **Temperature Rerating Curve**



#### **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 DwellTime:	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.



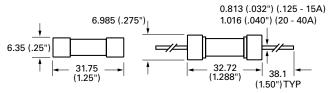
#### **Product Characteristics**

Materials	Body: Ceramic Cap: Nickel–plated Brass Leads: Tin–plated Copper		
Terminal Strength	MIL-STD-202G, Method 211A, Test Condition A		
Solderability	Reference IEC 60127 Second Edition 2003-01 Annex A		
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-202G, Method 107G, Test Condition B (5 cycles, -65°C to +125°C)		
Vibration	MIL-STD-202G, Method 201 A		
Humidity	MIL-STD-202G, Method 103B, Test Condition A (High RH (95%) and Elevated temperature (40°C) for 240 hours)		
Salt Spray	MIL- STD-202G, Method 101D, Test Condition B		

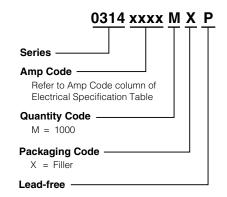
#### **Dimensions**

### **314** 000P **Series 324** 000P **Series**



Axial Lead Material: Tin-coated copper

### **Part Numbering System**



# **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width				
314 Series								
Bulk	N/A	1000	MX	N/A				
Bulk	N/A	100	HX	N/A				
324 Series								
Bulk	N/A	1000	MX	N/A				
Bulk	N/A	100	HX	N/A				

325