

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
- RoHS compliant and Lead-free
- Available in cartridge and axial lead format and with various forming dimensions

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

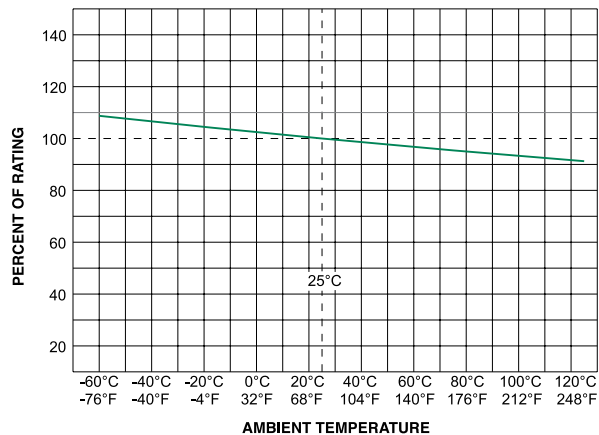
Electrical Specification by Item

Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² 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	750 A @ 250 VAC 10 kA @ 125 VAC 10 kA @ 125 VDC	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		0.00355	631		x	x	x	x	x
020.*	20	280	1000 A @ 250 VAC 200 A @ 300 VAC 10 kA @ 125 VAC 10 kA @ 125 VDC	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
025.**	25	280		0.00235	1450				x		x
030.	30	250		0.00182	2490			x	x	x	x
040.	40	250	1000 A @ 250 VAC 400 A @ 150 VDC	0.0014	22925				x		x

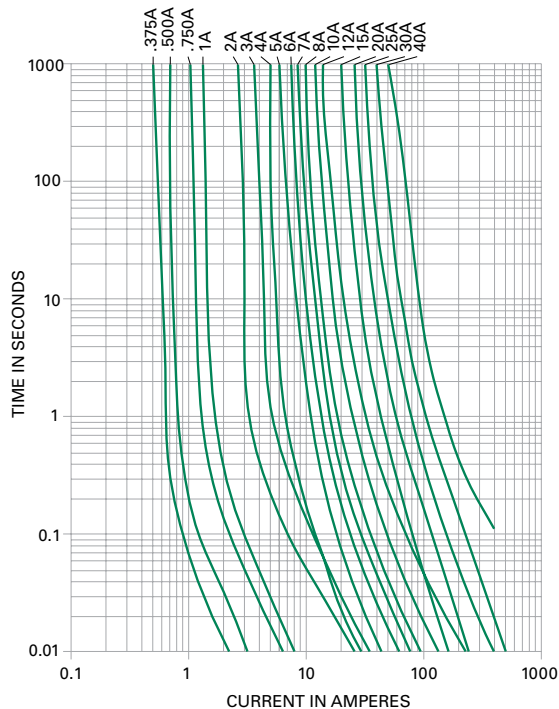
* 350A@280VAC interrupting rating available for 15A and 20A. ** 50A@280VAC for 25A. Add suffix '280'. Example: 0324020.MX280P

I²t test at 10x rated current

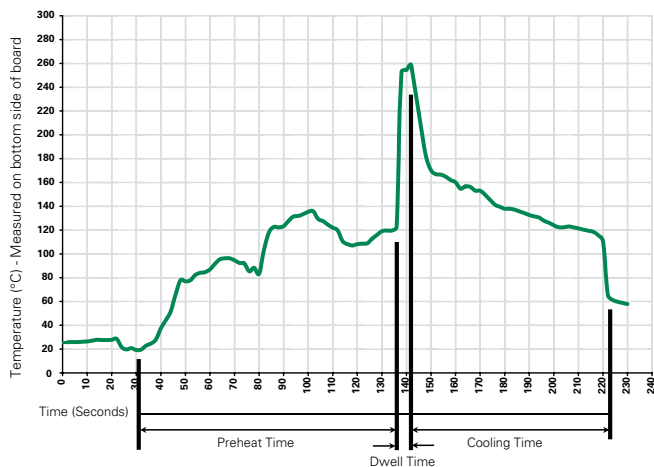
Temperature Derating Curve



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 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.

Axial Lead & Cartridge Fuses

3AB > Fast-Acting > 314/324 Series

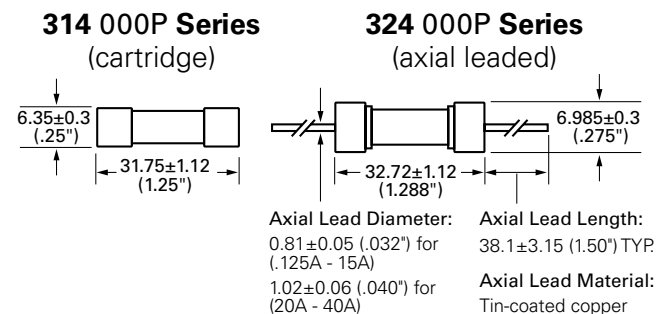
Product Characteristics

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

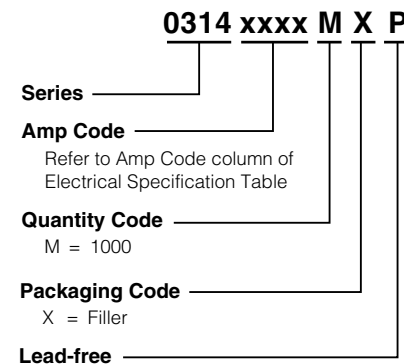
Operating Temperature	-55°C to +125°C
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B (5 cycles, -65°C to +125°C)
Vibration	MIL-STD-202G, Method 201 A
Humidity	MIL-STD-202G, Method 103B, Test Condition A (High RH (95%) and Elevated temperature (40°C) for 240 hours)
Salt Spray	MIL-STD-202G,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

Dimensions

Measurements displayed in millimeters (inches)



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
314 Series				
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
324 Series				
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
324 Series**

Mouser Electronics

Authorized Distributor

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[0314030.HXP](#) [0324007.H](#) [0324020.H](#) [0314004.HXP](#) [0324.125HXP](#) [0314020.HXP](#) [0324001.MXP](#) [0314006.MXP](#)
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[0314001.H](#) [0324012.HXP](#) [0324020.MXB](#) [0314004.MXP](#) [0314010.HXP](#) [0324005.MXP](#) [0324008.M](#) [0314.750H](#)
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[0324.750M](#) [0324003.M](#) [0314006.H](#) [0324005.M](#) [0314.125HXP](#) [0324.500MXP](#) [0324.125H](#) [0314025.MX52LP](#)
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