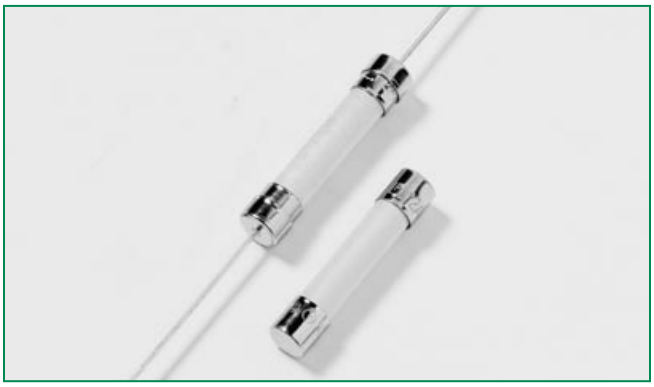
314/324 Series Lead-free 3AB, Fast-acting Fuse



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
UL	E10480	125mA - 15A
CSA	LR 29862	125mA - 20A
VDE	E10480	15A* - 40A
PSE	NBK 030805 - E10480A-F NBK 260106 - JP1021A/B	125mA - 30A
KTL	SU05001 - 6001/6002/6003/7006	125mA - 30 A
CE		125mA - 30A

Electrical Characteristics for Series

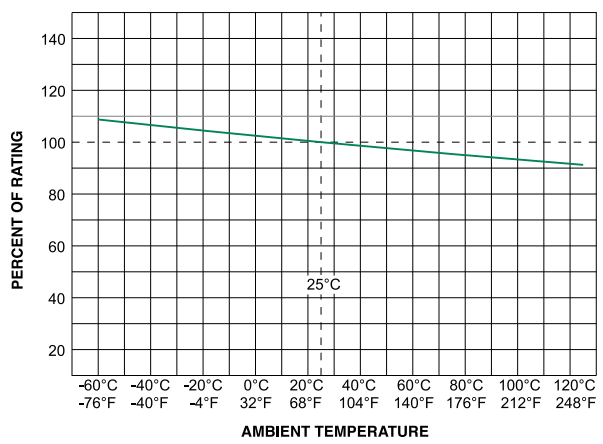
% of Ampere Rating	Ampere Rating	Opening Time
100%	125mA – 30A	4 hours, Minimum
135%	125mA – 30A	1 sec.., Maximum
200%	125mA – 12A	15 sec., Maximum
	15A – 30A	30 sec., Maximum

Electrical Characteristic Specification by Item

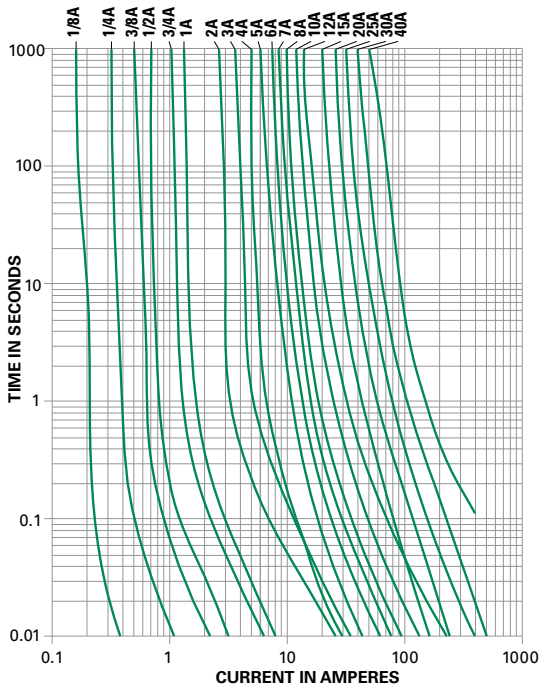
Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec)	Agency Approvals					
						UL	CSA	KTL	VDE	PSE	CE
.125	0.125	250	35A@250Vac 10KA@125Vac 10KA@125Vdc	6.20	0.00149	x	x				x
.250	0.25	250		1.95	0.0140	x	x				x
.375	0.375	250		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	100A@250Vac 10KA@125Vac 10KA@125Vdc	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	750A@250Vac 10KA@125Vac 10KA@125Vdc	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
015.	15	250		0.00505	292	x	x			x	x
015.*	15	280		0.00505	292				x		x
020.	20	250	1000A@250Vac 200A@300Vac 10KA@125Vac 10KA@125Vdc	0.00355	631		x		x	x	x
020.*	20	280		0.00355	631				x		x
025.	25	250	100A@250Vac 1000@75Vdc 400@125Vac 400A@125Vdc	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	1000A@250Vac 400A@150Vdc	0.0014	22925				x		x

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

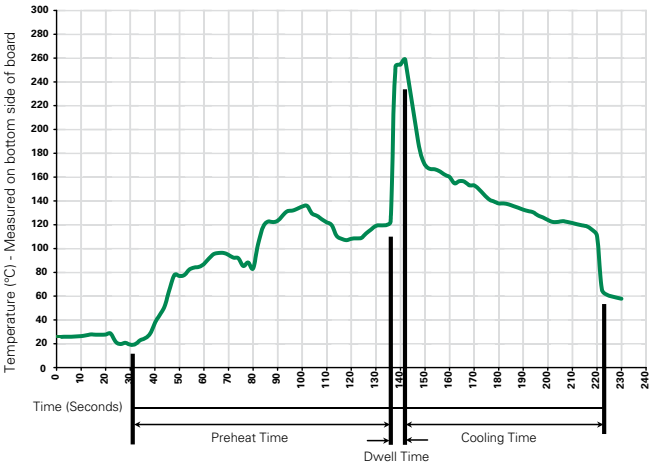
Temperature Rerating Curve



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 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.

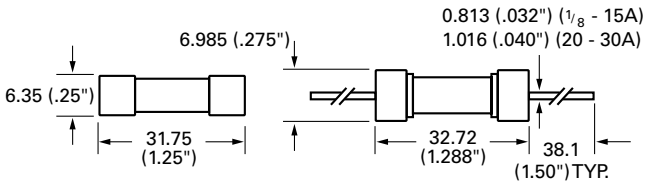
Product Characteristics

Materials	Body: Ceramic Cap: Nickel–plated brass Leads: Tin–plated Copper
Terminal Strength	MIL-STD-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

0314 xxxx M X P

Series

Amp Code
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code
M = 1000

Packaging Code
X = Filler

Lead-free

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
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