

RoHS **224/225 Series** Lead-Free 2AG, Fast-Acting



Description

The 2AG Fast-Acting Fuses are available in cartridge form or with axial leads. 2AG Fuses provide the same performance characteristics as their 3AG counterpart, while occupying one-third the space. Sleeved fuses are available.

Features

- In accordance with underwriter's Laboratories Standard UL 248-14
- Available in cartridge and axial lead form 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.

Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	4 hours, Minimum
135%	1 hour, Maximum
200%	1 sec., Maximum

Agency Approvals

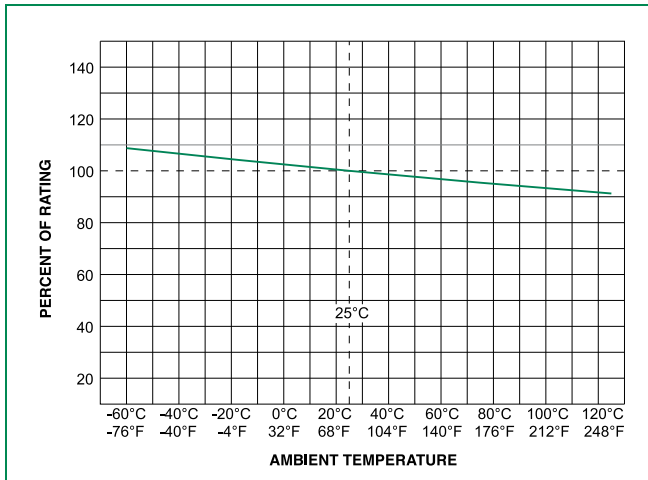
Agency	Agency File Number	Ampere Range
	E10480	375mA - 3.5A
	E10480	4A - 10A
	LR 29862	375mA - 10A
	NBK200405-E10480 NBK060405-E10480	Cartridge: 1A - 10A Pigtail: 1A - 10A
		375mA - 10A

Electrical Characteristic Specifications by Item

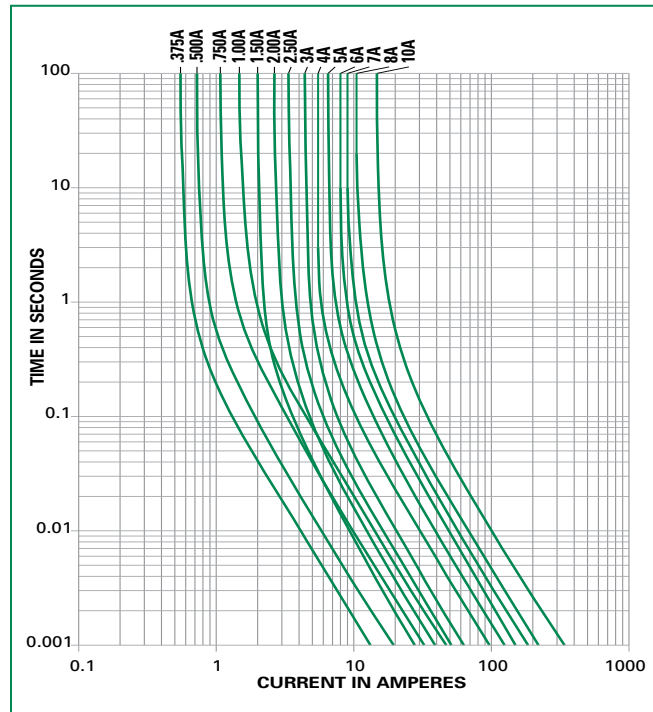
Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Agency Approvals				
										
.375	0.375	250	35A@250Vac 10KA@125Vac 10KA@125Vdc	0.3950	0.171	x		x		x
.500	0.5	250		0.2650	0.365	x		x		x
.750	0.75	250		0.1520	1.050	x		x		x
.001.	1	250		0.1027	2.220	x		x	x	x
01.5	1.5	250	100A@250Vac 10KA@125Vac 10KA@125Vdc	0.0712	0.800	x		x	x	x
002.	2	250		0.0497	1.500	x		x	x	x
02.5	2.5	250		0.0372	2.680	x		x	x	x
003.	3	250		0.0317	4.620	x		x	x	x
03.5	3.5	250	100A@250Vac 500A@125Vac	0.0265	6.700	x		x	x	x
004.	4	125		0.0240	9.400		x	x	x	x
005.	5	125		0.0186	17.0		x	x	x	x
005.	5	250		0.0186	17.0		x	x		x
006.	6	125	500A@125Vac	0.0154	22.1		x	x	x	x
007.	7	125		0.0130	40.0		x	x	x	x
008.	8	125		0.0107	56.0		x	x	x	x
010.	10	125		0.0075	116.0		x	x	x	x

* 10A with 500A @ 125 Vdc internal breaking capacity testing.

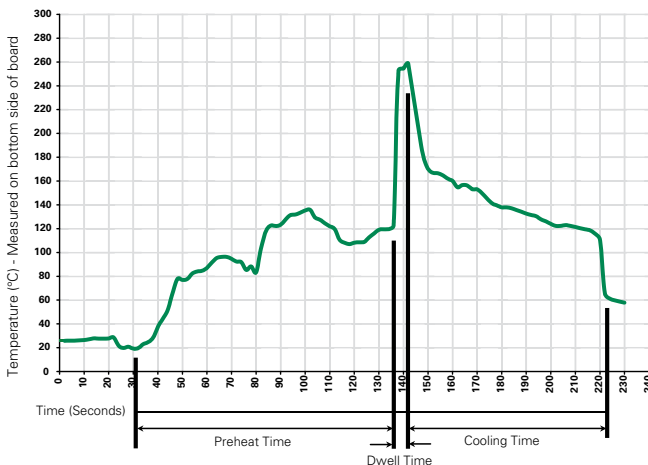
Temperature Derating Curve



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.

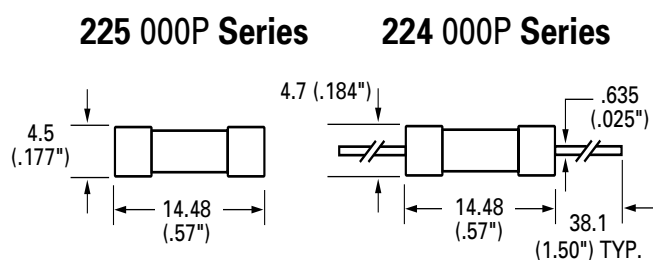
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

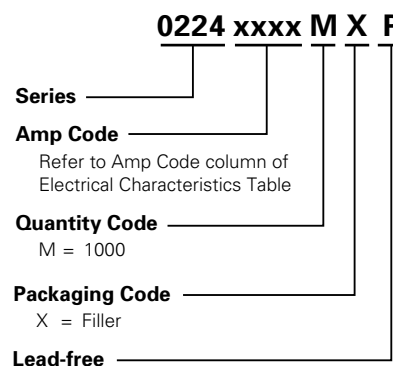
Materials	Body : Glass Cap : Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202F Method 211A, Test Condition A
Solderability	Reference IEC 6012/Second Edition 2003-01 Annex A
Product Marking	Cap1 : Brand logo, current and Voltage Ratings Cap2 : Series and Agency approval Mark

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

Dimensions



Part Numbering System



Note: The ratings from 4A to 10A with MXUP in the suffix

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
224 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	100	HX	N/A
Reel and Tape	EIA 296-E	1500	DRT1	T1=52mm (2.062")
225 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	100	HX	N/A

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[225.125](#) [224.500](#) [225007](#) [224001](#) [224002](#) [220007](#) [225.100](#) [225.250](#) [225.500](#) [225.750](#) [225001](#) [22501.5](#) [225002](#)
[225003](#) [22503.5](#) [225008](#) [224004](#) [0225007.M](#) [0224.100DRT3W](#) [0224010.DRT1W](#) [0224.500DRT1W](#)
[0224.250DRT1W](#) [0225004.H](#) [0225005.M](#) [0225.250M](#) [0224.100DRT1W](#) [0224002.DRT1W](#) [0224002.DRT3W](#)
[0224004.MXW](#) [0224005.DRT2W](#) [022501.5M](#) [022402.5DRT3W](#) [0224.125DRT1W](#) [0224.750DRT3W](#) [0225.100M](#)
[022401.5DRT1W](#) [0224.375DRT3W](#) [0225.750H](#) [0224.375DRT1W](#) [0224.750HXW](#) [0225001.H](#) [0224.125DRT2W](#)
[0224.100MXW](#) [0224010.DRT3W](#) [0224.100HXW](#) [0224.250HXW](#) [022403.5DRT3W](#) [022401.5DRT2W](#) [0224010.MXW](#)
[0224002.HXW](#) [0225003.H](#) [022503.5H](#) [0224005.DRT1W](#) [0224005.DRT3W](#) [0224.500MXW](#) [0225001.M](#) [0225003.M](#)
[0224003.DRT3W](#) [0224001.DRT2W](#) [0224005.HXW](#) [022401.5HXW](#) [0224.100DRT2W](#) [0224.250DRT3W](#)
[0224010.DRT2W](#) [0224001.DRT1W](#) [0224.500DRT3W](#) [0225010.M](#) [0225.250H](#) [0224.125DRT3W](#) [0224003.DRT1W](#)
[022402.5HXW](#) [0224004.DRT1W](#) [022502.5M](#) [022402.5DRT1W](#) [220011](#) [225004](#) [225010](#) [022403.5DRT2W](#)
[0225008.M](#) [0225002.H](#) [0225.750M](#) [0224.750DRT2W](#) [0224.125HXW](#) [0224005.MXW](#) [022401.5DRT3W](#)
[0224.125MXW](#) [0224.500DRT2W](#) [0225006.M](#) [0225.375M](#) [0224006.HXW](#) [022402.5DRT2W](#) [0225004.M](#) [0225.125H](#)
[0224.375HXW](#) [022501.5H](#) [022503.5M](#) [0225007.H](#) [0224.375DRT2W](#) [0225010.H](#) [022403.5DRT1W](#)