

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
- Fuses are boardwashable in most solvents
- 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.






### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	100mA - 3.5A
	E10480	4A - 10A
	LR 29862	100mA - 10A
	NBK200405-E10480 NBK060405-E10480	Cartridge: 1A - 10A Pigtail: 1A - 10A
		100mA - 10A

### Electrical Characteristics for Series

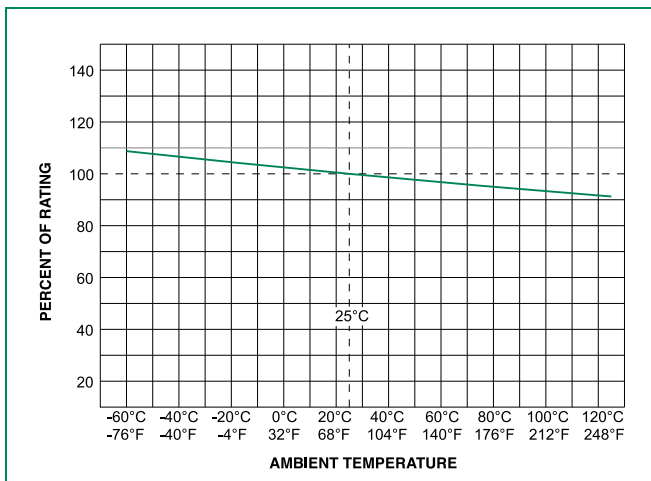
% of Ampere Rating	Opening Time
100%	4 hours, Minimum
135%	1 hour, Maximum
200%	1 sec., Maximum

### Electrical Characteristic Specifications by Item

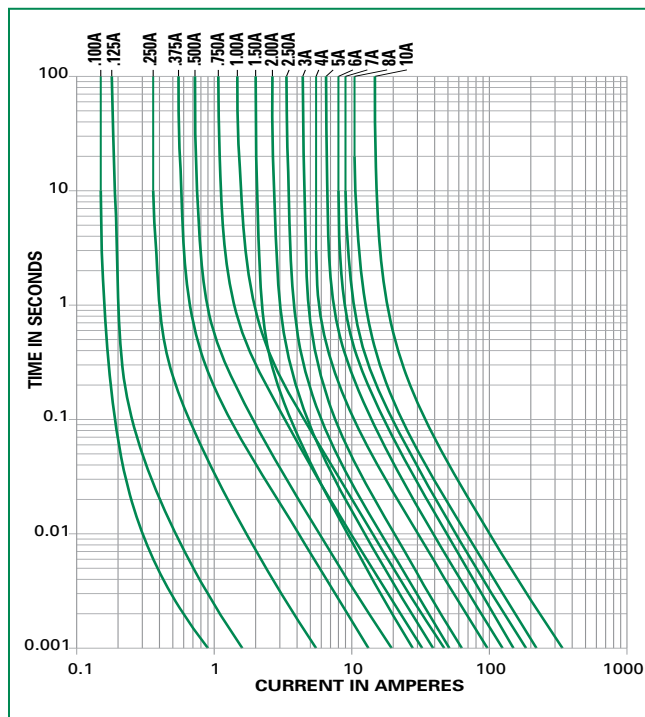
Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals				
										
.100	.1	250	35A@250Vac 10KA@125Vac 10KA@125Vdc	6.1500	0.00075	x		x		x
.125	0.125	250		3.9000	0.00286	x		x		x
.250	0.25	250		1.1500	0.0300	x		x		x
.375	0.375	250		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	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	0.0265	6.700	x		x	x	x	
004.	4	125	100A@250Vac 500A@125Vac	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.

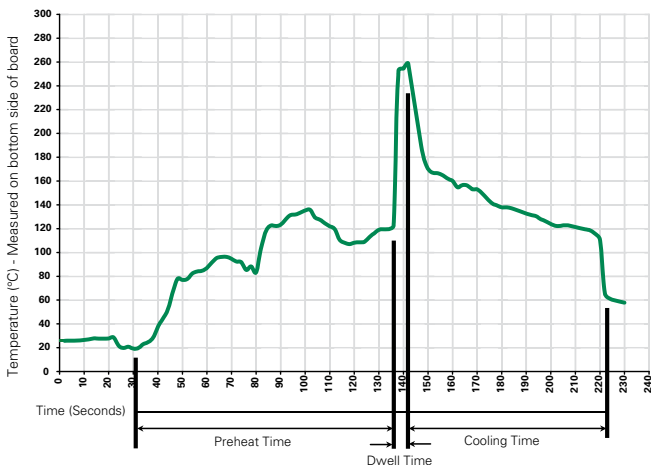
### Temperature Derating Curve



### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<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.

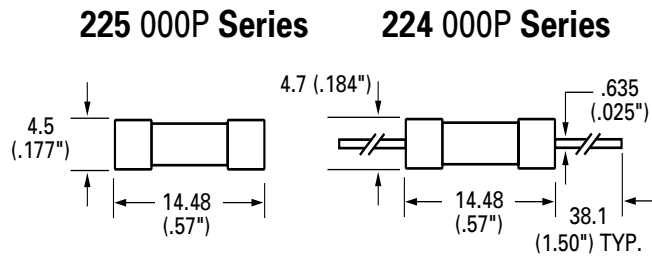
**Note: These devices are not recommended for IR or Convection Reflow process.**

### Product Characteristics

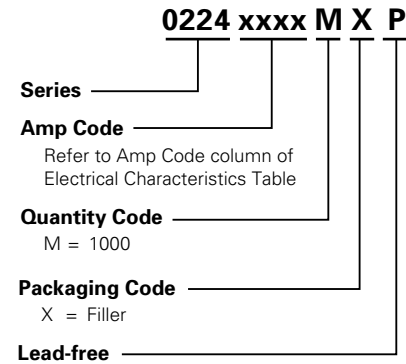
<b>Materials</b>	Body : Glass Cap : Nickel-plated brass Leads: Tin-plated Copper
<b>Terminal Strength</b>	MIL-STD-202F Method 211A, Test Condition A
<b>Solderability</b>	Reference IEC 6012/Second Edition 2003-01 Annex A
<b>Product Marking</b>	Cap1 : Brand logo, current and Voltage Ratings Cap2 : Series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

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

### Dimensions



### Part Numbering System



**Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>224 Series</b>				
Bulk	N/A	5	VX	N/A
Bulk	N/A	5	VXU	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	100	HXU	N/A
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MX250U	N/A
Bulk	N/A	1000	MXF16	N/A
Bulk	N/A	1000	MXF23	N/A
Bulk	N/A	1000	MXU	N/A
Reel and Tape	EIA 296-E	1500	DRT1	T1=52mm (2.062")
Reel and Tape	EIA 296-E	1500	DRT1U	T1=52mm (2.062")
Reel and Tape	EIA 296-E	1500	DRT2	T2=63mm (2.500")
Reel and Tape	EIA 296-E	1500	DRT3	T3=73mm (2.874")
Reel and Tape	EIA 296-E	2500	ERT1	T1=52mm (2.062")
Reel and Tape	EIA 296-E	2500	ERT2	T2=63mm (2.500")
Reel and Tape	EIA 296-E	2500	ERT3	T3=73mm (2.874")
Bulk	N/A	1000	MX50LE	N/A
<b>225 Series</b>				
Bulk	N/A	5	VX	N/A
Bulk	N/A	5	VXU	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	100	HXU	N/A
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXU	N/A