

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





# **Agency Approvals**

Agency	Agency File Number	Ampere Range
(I)	E10480	375mA - 3.5A
<b>M</b>	E10480	4A - 10A
<b>(</b>	LR 29862	375mA - 10A
PS E	NBK200405-E10480A/B/C/D NBK110512-E10480A/B	1A - 3.5A 4A - 5A
Œ		375mA - 10A

#### **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

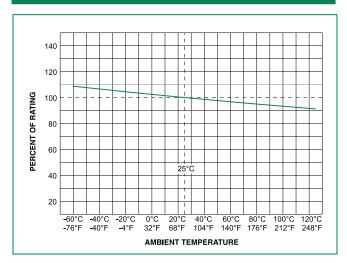
## **Electrical Characteristic Specifications by Item**

	Ampere	Voltage		Nominal	Nominal		Ago	ency Appro	vals	
Amp Code	Rating (A)	Rating (V)	Interrupting Rating	Cold Resistance (Ohms)	Melting I <sup>2</sup> t (A <sup>2</sup> sec)	(Î)	<i>9</i> 1	<b>⊕</b> ®	PS	Œ
.375	0.375	250		0.3950	0.171	X		Х		Х
.500	0.5	250	35A@250Vac	0.2650	0.365	X		X		X
.750	0.75	250	10KA@125Vac	0.1520	1.050	X		X		X
001.	1	250	10KA@125Vdc	0.1027	2.220	X		X	X	X
01.5	1.5	250		0.0712	0.800	X		X	X	X
002.	2	250	1004@250\/aa	0.0497	1.500	×		×	X	X
02.5	2.5	250	100A@250Vac 10KA@125Vac	0.0372	2.680	X		X	X	Х
003.	3	250	10KA@125Vdc	0.0317	4.620	X		×	X	X
03.5	3.5	250	TUKA@125VUC	0.0265	6.700	X		X	X	Х
004.	4	125	100A@250Vac	0.0240	9.400		×	×	X	X
005.	5	125	500A@125Vac	0.0186	17.0		Х	Х	X	Х
005.	5	250	500A@125VaC	0.0186	17.0		×	×		X
006.	6	125		0.0154	22.1		Х	Х	X	X
007.	7	125	E004@12E\/ca	0.0130	40.0		X	X	X	X
008.	8	125	500A@125Vac	0.0107	56.0		Х	Х	X	Х
010.	10	125		0.0075	116.0		×	X	X	X

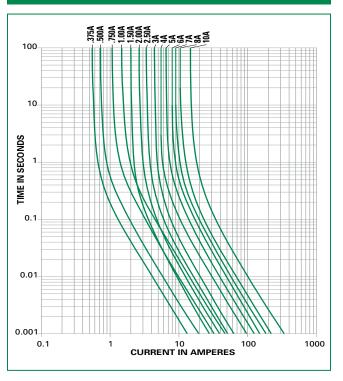
<sup>\* 10</sup>A with 500A @ 125 Vdc internal breaking capacity testing.



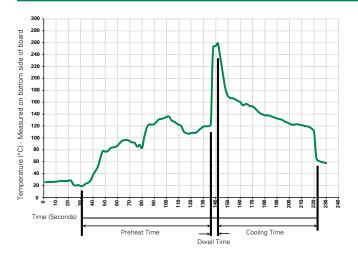
# **Temperature Rerating Curve**



## **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.** 

# Axial Lead & Cartridge Fuses 2AG > Fast Acting > 224/225 Series

# **Product Characteristics**

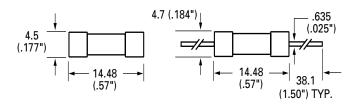
Materials	Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202G, Method 211A, Test Condition A
Solderability	Reference IEC 60127 Second Edition 2003-01 Annex A
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

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 201A
Humidity	MIL-STD-202G, Method 103B, Test Condition A: High RH (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202G, Method 101D, Test Condition B

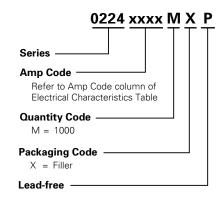
## **Dimensions**

# **225** 000P **Series**

# **224** 000P Series



# **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=53mm (2.087")	
225 Series					
Bulk	N/A	1000	MX	N/A	
Bulk	N/A	100	HX	N/A	