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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

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





### **Agency Approvals**

Agency	Agency File Number	Ampere Range		
(jr)	E10480	0.375A - 3.5A		
<b>71</b> °	E10480	4A - 10A		
<b>(</b>	29862	0.375A - 10A		
PS E	NBK200405-E10480A/B/C/D NBK110512-E10480A/B NBK210405-E10480E/F	1A - 3.5A 4A - 5A 6A - 10A		
Œ	N/A	0.375A - 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

# **Additional Information**



Datasheet 224 Series



Resources 224 Series



For recommended fuse accessories for this product series, see 'Recommended Accessories' section.

Samples 224 Series



Datasheet 225 Series



Resources 225 Series



Samples 225 Series



Accessories 224 & 225 Series

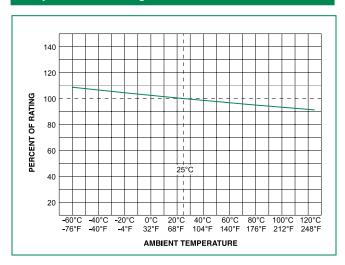
# Electrical Characteristic Specifications by Item

	Ampere	Voltage		Nominal	Nominal	Agency Approvals				
Amp Code	Rating (A)	Rating (V)	Interrupting Rating	Registance Melting	Melting I <sup>2</sup> t (A <sup>2</sup> sec)	(I)	<b>71</b>	<b>⊕</b> ®	PS	Œ
.375	0.375	250	35A@250Vac	0.3950	0.171	X		Х		Х
.500	0.5	250	10KA@125Vac	0.2650	0.365	X		X		X
.750	0.75	250	10KA@125Vdc	0.1520	1.050	X		X		X
001.	1	250	10KA@125V0C	0.1027	2.220	X		Х	X	X
01.5	1.5	250		0.0712	0.800	X		Х	X	X
002.	2	250	100A@250Vac	0.0497	2.180	X		X	X	X
02.5	2.5	250	10KA@125Vac	0.0372	3.820	X		Х	X	X
003.	3	250	10KA@125Vdc	0.0317	4.620	X		X	X	X
03.5	3.5	250		0.0265	6.700	X		Х	X	X
004.	4	125	100A@250Vac	0.0240	9.400		X	X	X	X
005.	5	125	500A@125Vac	0.0186	17.0		X	Х	X	X
005.	5	250	SUUA@125VaC	0.0186	17.0		X	X		X
006.	6	125		0.0154	22.1		X	X	X	X
007.	7	125	500A@125Vac	0.0130	40.0		X	X	X	X
008.	8	125	500A@125Vac	0.0107	56.0		X	Х	X	X
010.	10	125		0.0075	116.0		X	х	X	X

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

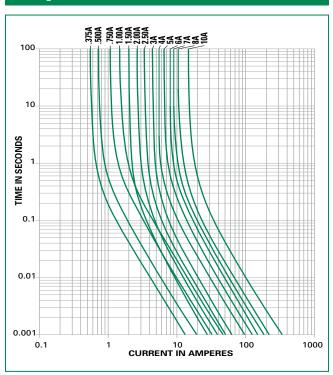


# **Temperature Re-rating Curve**

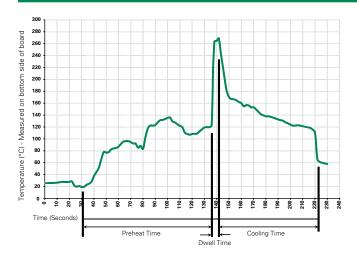


Rerating depicted in this curve is in addition to the standard derating of 25%

## **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

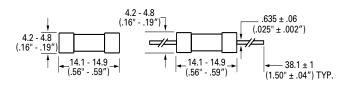
## **Product Characteristics**

Materials	Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MILSTD-202 Method 208
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

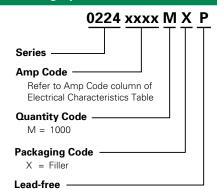
Operating Temperature:	–55°C to 125°C.
Thermal Shock:	MIL-STD-202, Method 107, Test Condition B (5 Cycles -65°C to +125°C).
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A: High RH (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test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

### **Recommended Accessories**

Accessory Type	Series	Description	Max Application Voltage	Max Application Amperage
	<u>245</u>	Panel Mount Shock-Safe Fuseholder	300	10
Holder	<u>150</u>	In-Line Fuseholder	350	10
	<u>286</u>	Panel Mount Flip-Top Shock-Safe Fuseholder	250	10
Block	<u>254</u>	OMNI-BLOK® Fuse Block	400	10
Clip	<u>111</u>	PC Board Mount Fuse Clip	250	10

- Notes:

  1. Do not use in applications above rating.
  2. Please refer to fuseholder data sheet for specific re-rating information.
  3. Please contact factory for applications greater than the max voltage and amperage shown.