

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



Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.375A - 3.5A
	E10480	4A - 10A
	29862	0.375A - 10A
	225 (Cartridge Version) NBK200405-E10480A NBK200405-E10480C NBK110512-E10480A NBK190619-E10480A	1A 1.5A - 3.5A 4A - 5A 6A - 10A
	224 (Axial Leaded Version) NBK200405-E10480B NBK200405-E10480D NBK110512-E10480B NBK190619-E10480B	1A 1.5A - 3.5A 4A - 5A 6A - 10A
	N/A	0.375A - 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 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	100A@250Vac 10KA@125Vac 10KA@125Vdc	0.1027	2.220	x			x	x
01.5	1.5	250		0.0712	0.800	x			x	x
002.	2	250		0.0497	2.180	x			x	x
02.5	2.5	250		0.0372	3.820	x			x	x
003.	3	250		0.0317	4.620	x			x	x
03.5	3.5	250		0.0265	6.700	x			x	x
004.	4	125	100A@250Vac 500A@125Vac	0.0240	9.400		x		x	x
005.	5	125		0.0186	17.0		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
007.	7	125		0.0130	40.0		x		x	x
008.	8	125		0.0107	56.0		x		x	x
010.	10	125		0.0075	116.0		x		x	x

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

** Interrupting Rating may differ based on Agency Approval. See Agency Approval certificate for more details..

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/CSA/NMX 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.

Additional Information



Resources
224 Series



Resources
225 Series



Samples
224 Series



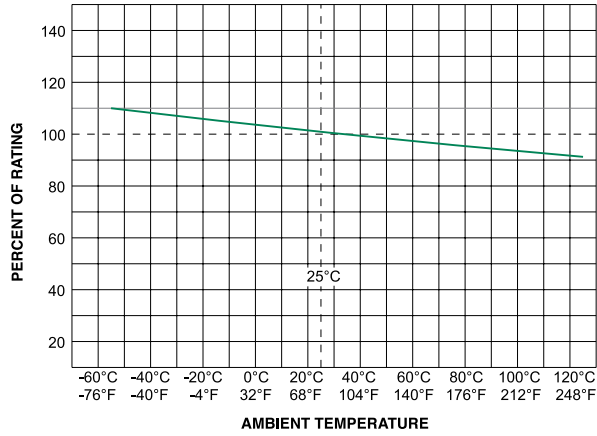
Samples
225 Series



Accessories
224 & 225 Series

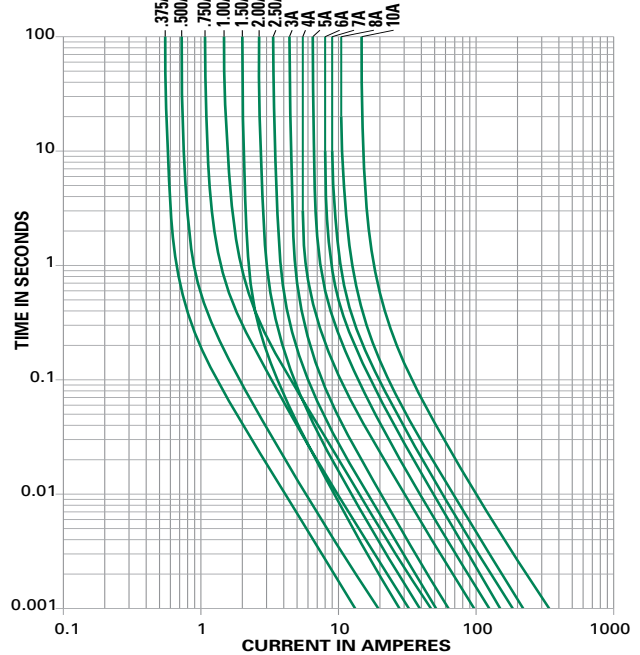
For recommended fuse accessories for this product series, see 'Recommended Accessories' section.

Temperature Re-rating Curve

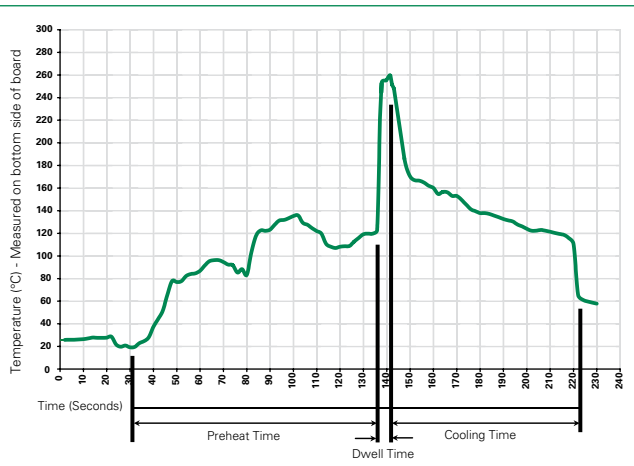


Note:
Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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.

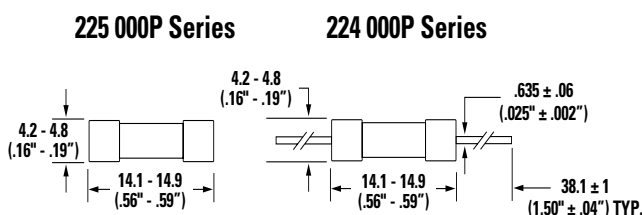
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

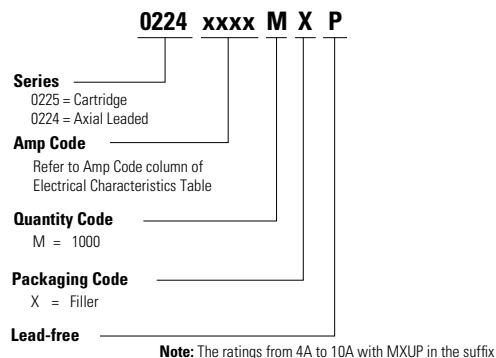
Materials	Body : Glass Cap : Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 Method 208
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

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



Part Numbering System



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
Holder	245	Panel Mount Shock-Safe Fuseholder	300	10
	150	In-Line Fuseholder	350	10
	286	Panel Mount Flip-Top Shock-Safe Fuseholder	250	10
Block	254	OMNI-BLOCK® Fuse Block	400	10
Clip	111	PC Board Mount Fuse Clip	250	10

Notes:

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