

RoHS **Pb** **505 Series, Lead-free 3AB, Fast-Acting Fuse**



**Description**

A 500VAC/VDC rated ceramic fuse with remarkable interrupting rating in a compact 6.3 x 32mm package, which is well suited for circuit protection in high energy applications.

**Features**

- In accordance with underwriter's Laboratories Standard UL 248-14
- Available in cartridge and axial lead form and with various lead forming dimensions.
- RoHS compliant and Lead-free
- Superior Interrupting rating of 20,000 Amperes
- Compact form factor of 6.3 x 32mm

**Applications**

- Uninterruptible Power Supplies (UPS)
- 3 Phase Power Supplies

**Agency Approvals**

Agency	Agency File Number	Ampere Range
	Recognised File: E10480	10A - 30A
	813483	10A - 12A
		10A - 30A

**Electrical Characteristics for Series**

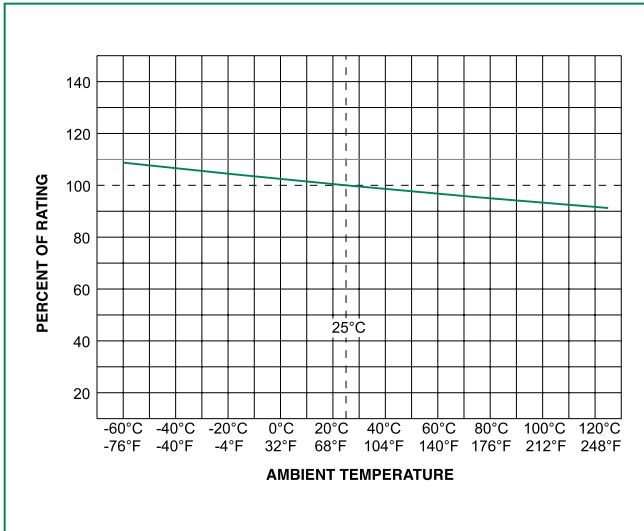
% of Ampere Rating	Ampere Rating	Opening Time
150%	10 - 30	30 minutes, Maximum
200%		30 minutes, Maximum
300%		10 sec., Maximum

**Electrical Characteristics Specifications by Item**

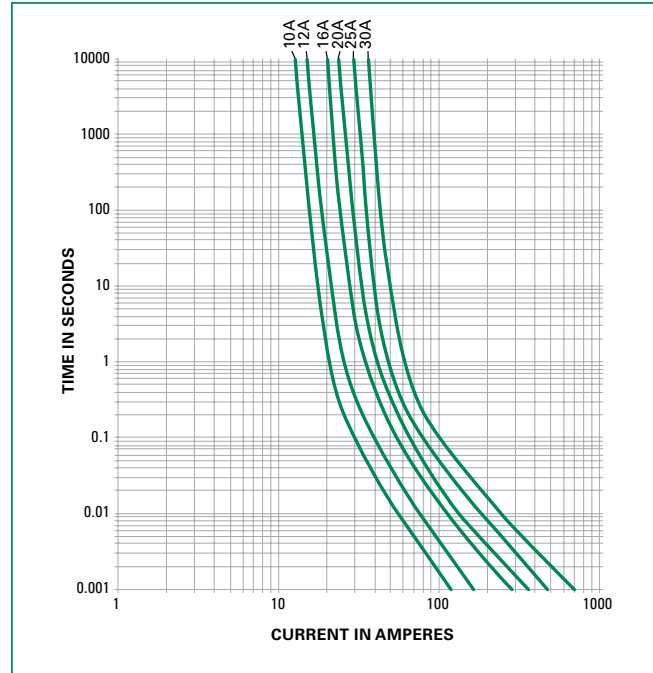
Amp Code	Amp Rating (A)	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> T (A <sup>2</sup> Sec.)	Agency Approvals		
010.	10	450	20kA@450VAC 1000A@250VDC	0.0167	91	X	X	X
012.	12	450		0.0117	192	X	X	X
016.	16	500	50kA@500VAC 20kA@500VDC	0.0073	51	X		X
020.	20	500	30kA@500VAC 20kA@500VDC	0.0056	101	X		X
025.	25	500		0.0048	145	X		X
030.	30	500		0.0038	203	X		X

**505 Series**

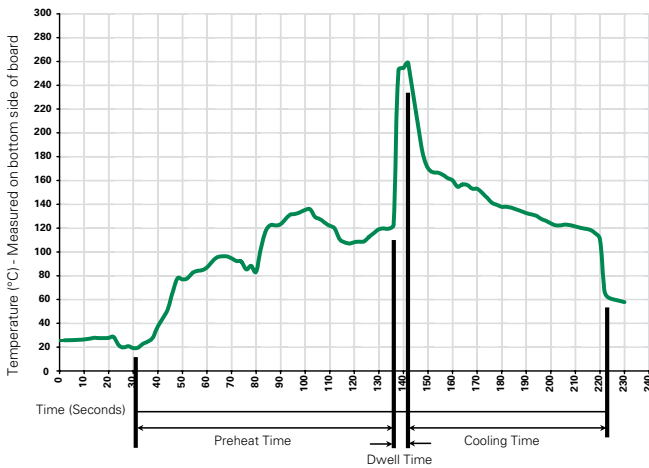
### Temperature Derating Curve



### 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.

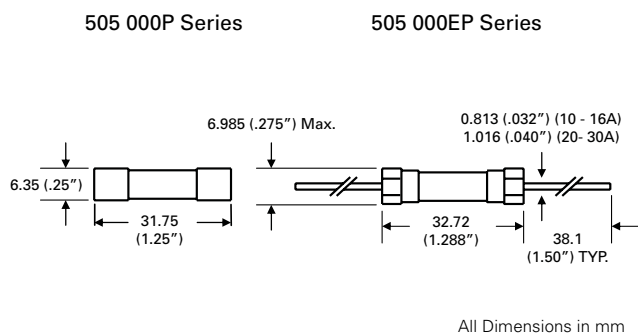
**Note: These devices are not recommended for IR or Convection Reflow process.**

### Product Characteristics

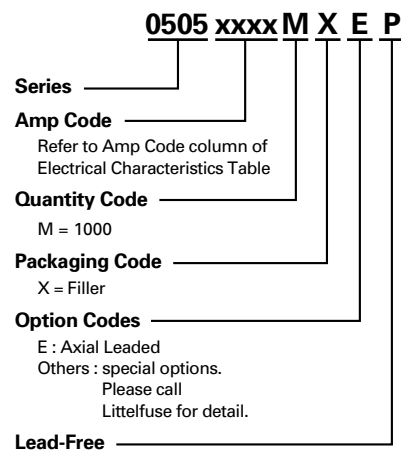
<b>Material</b>	Body: Ceramic Cap: Nickel-plated brass Leads: Tin-plated Copper
<b>Terminal Strength</b>	MIL-STD-202G, Method 211A, Test Condition A
<b>Solderability</b>	Reference IEC 60127 Second Edition 2003-01 Annex A
<b>Product Marking</b>	Cap 1: Brand logo, current and voltage rating Cap 2: Series and agency approval markings
<b>Packaging</b>	Available in Bulk (M=1000 pcs/pkg)

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

### Dimensions



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>505 Series</b>				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A

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