

505 Series, Lead-free 3AB, Fast-Acting Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	Recognised File: E10480	10A - 30A
	1312914	10A - 12A
		10A - 30A
	T502691080001	15 - 30A

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

Electrical Characteristic Specifications by Item

Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A ² 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	
015.	15	500	50kA@500VAC 20kA@500VDC	0.0073	68	x		x	x
016.	16	500		0.0073	68	x		x	x
020.	20	500	30kA@500VAC 20kA@500VDC	0.0056	101	x		x	x
025.	25	500		0.0048	145	x		x	x
030.	30	500		0.0038	203	x		x	x

Note: 20kA@500VAC & 20kA@500VDC interrupting rating available for TUV certification of 15~30A

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

Additional Information



Datasheet

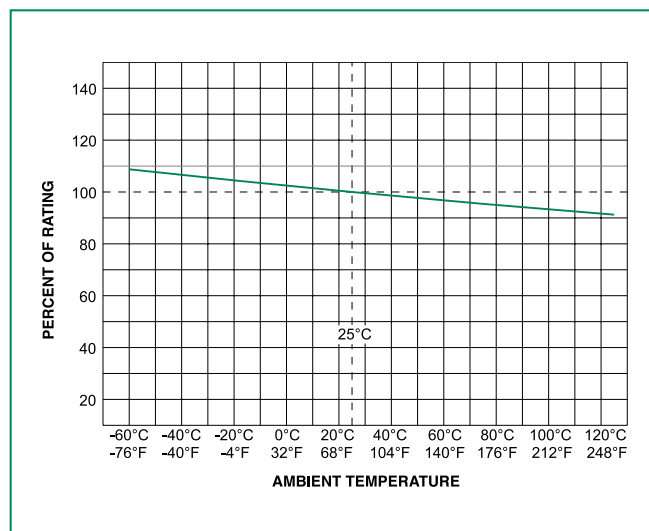


Resources

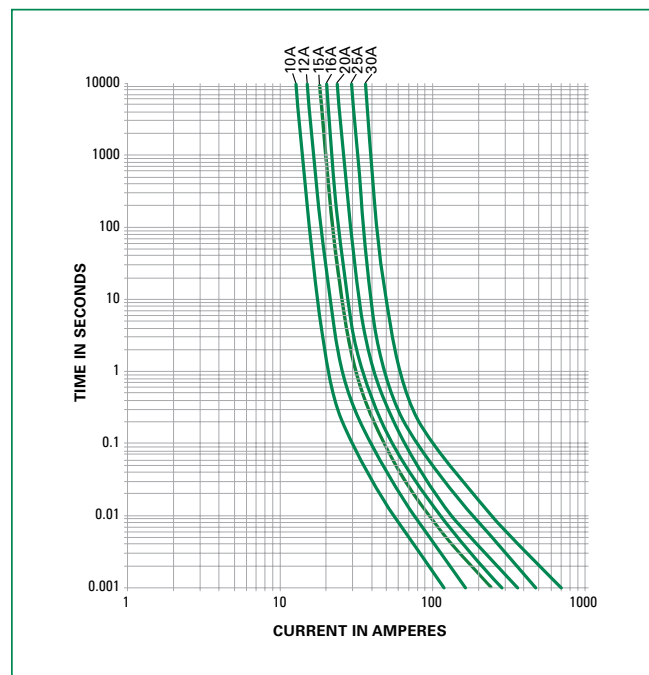


Samples

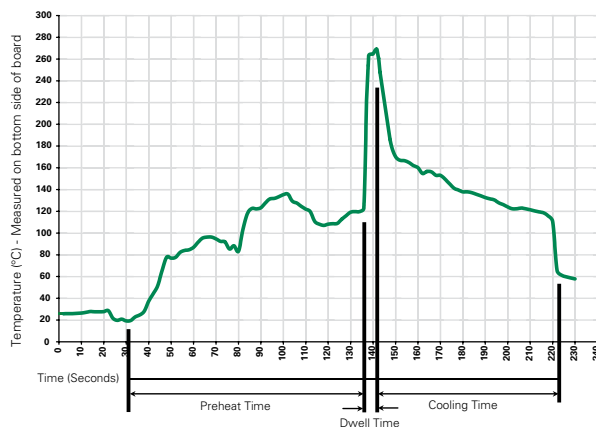
Temperature Derating Curve



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:	270° C
Solder Dwell Time:	10 seconds Maximum

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.

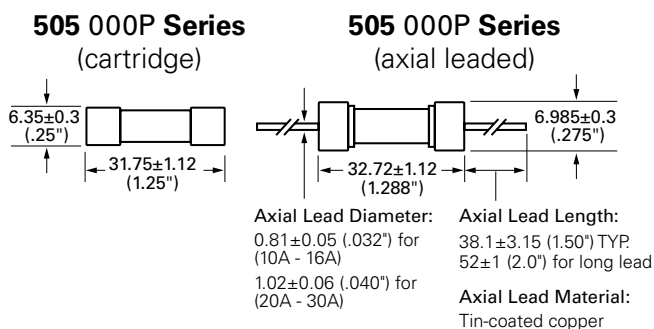
Product Characteristics

Materials	Body : Ceramic 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

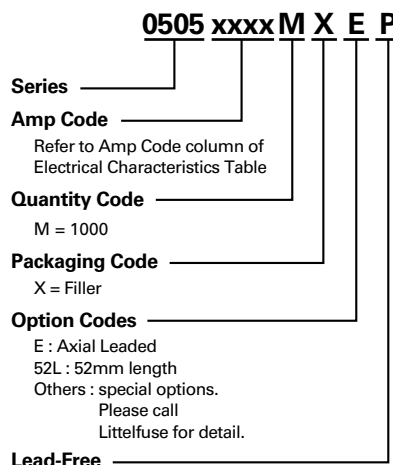
Operating Temperature:	-55°C to 125°C.
Thermal Shock:	MIL-STD-202G, Method 107G, Test Condition B (5 Cycles -65°C to +125°C).
Vibration	MIL-STD-202G, Method 201A
Humidity	MIL-STD-202G, Method 103B, Test Condition A: High relative humidity (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202G,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

Dimensions

Measurements displayed in millimeters (inches)



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
505 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Bulk	N/A	1000	MX52L	N/A