# Axial Lead & Cartridge Fuses 3AB > 504 Series Fuse

### 504 Series, 6.3x32mm Fuse





Agency Approvals				
Agency	Agency File Number	Ampere Range		
c <b>FL</b> °us	E10480	20A-30A		
<b>(</b> E	N/A	20A-30A		

#### **Description**

A 420VDC and 500VAC rated ceramic fuse with remarkable interrupting rating in a compact  $6.3 \times 32$ mm package, which is well suited for circuit protection in high energy applications.

#### **Features**

- In accordance with Underwriters Laboratories Standard UL 248-14
- Available in cartridge and axial lead form and with various lead forming dimensions.
- RoHS compliant and Lead-free
- Compact form factor of 6.3mm x 32mm

#### **Applications**

High Voltage DC power application

#### **Electrical Characteristic Specifications by Item**

Ampere	Max. Voltage	Interrupting	Nominal Cold	Nominal Melting	Agency Approvals		
Amp Code	Rating (A)	Rating (V)	Rating	Resistance (Ohms)	I <sup>2</sup> t (A <sup>2</sup> sec)	c <b>FL</b> ° us	Œ
020.	25		400A@420VDC 1500A@250VAC 200A@500VAC	5.8	760	Х	×
025.	25	420VDC 500VAC		3.95	1500	Х	x
030.	30			3.1	2600	х	×

#### **Electrical Characteristics for Series**

% of Ampere Rating	Ampere Rating Opening Time	
100%		4 Hours, Minimum
135%	20-30	1 Hour, Maximum
200%		120 Seconds, Maximum

#### **Additional Information**

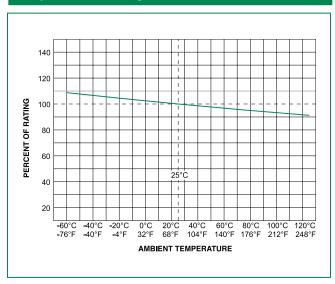






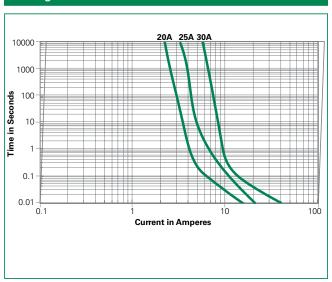


#### **Temperature Re-rating Curve**

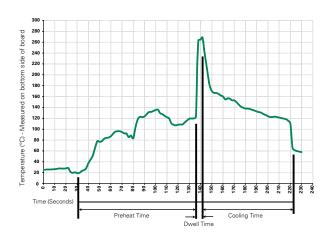


Rerating depicted in this curve is in addition to the standard derating of 25% for

#### **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 to 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** 3AB > 504 Series Fuse

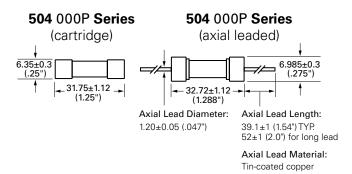
#### **Product Characteristics**

Materials	Body : Ceramic 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		

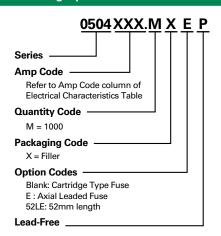
Operating Temperature:	−55°C to 125°C.
Thermal Shock:	MIL-STD-202, Method 107, Test Condition B
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A: High relative humidity (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test Condition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

#### **Dimensions**

Measurements displayed in millimeters (inches)



#### **Part Numbering System**



#### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
504 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Bulk	N/A	1000	MX52LE	N/A

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <a href="https://www.littelfuse.com/disclaimer-electronics">www.littelfuse.com/disclaimer-electronics</a>.