

## 688 Series Lead-Free, 6x25mm Fuse



### Description

A 70Vdc rated ceramic fuse with remarkable interrupting rating in a compact 6x25mm package, which is well suited for circuit protection in telecom applications.



### Features

- In accordance with Underwriter's Laboratories Standard UL 248-14
- Available in cartridge version
- RoHS compliant and Lead-free

### Applications

- PDU in Telecom Datacenter
- Wireless Transmission Base Station

### Agency Approvals

Agency	Agency File Number	Ampere Range
	T 50257715 01	30A
	E10480	5A - 40A

### Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
100%	5A - 40A	4 Hours, <b>Min.</b>
200%		120 Second, <b>Max.</b>

### Additional Information



Datasheet





Resources



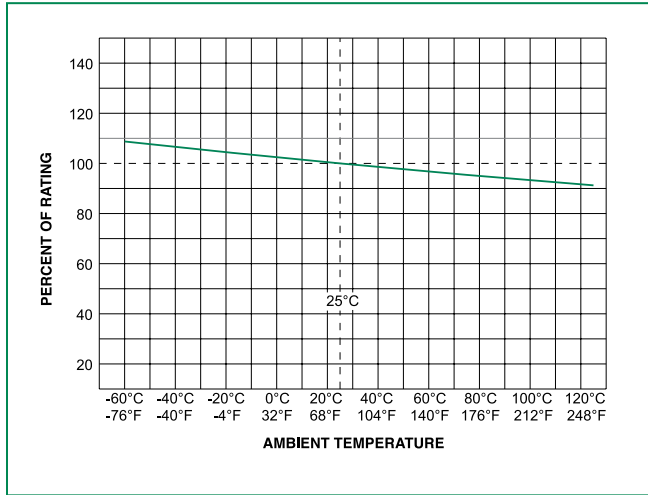
Samples

### Electrical Characteristic Specifications by Item

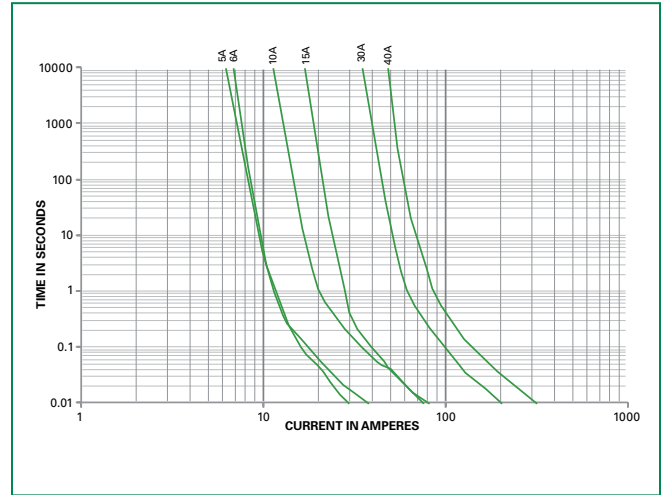
Amp Code	Amp Rating	Voltage Rating	Interrupting Rating	Nominal Cold Resistance (mOhms)	Nominal Melting I <sup>2</sup> t Under 10In (A <sup>2</sup> sec)	Agency Approvals	
							
005.	5	70Vdc	2500A @ 70Vdc	22	118		x
006.	6	70Vdc	2500A @ 70Vdc	21	132		x
010.	10	70Vdc	2500A @ 70Vdc	10	570		x
015.	15	70Vdc	2500A @ 70Vdc	6	554		x
030.*	30	70Vdc	2500A @ 70Vdc	2.1	4200	x	x
040.*	40	70Vdc 250Vac	2500A @ 70Vdc 1500A @ 250Vac	1.55	7800		x

Note: \*Surge rating: 1.2/50-8/20µs, 20KV/10KA surge is available for 30A and 40A.

### Temperature Re-rating Curve

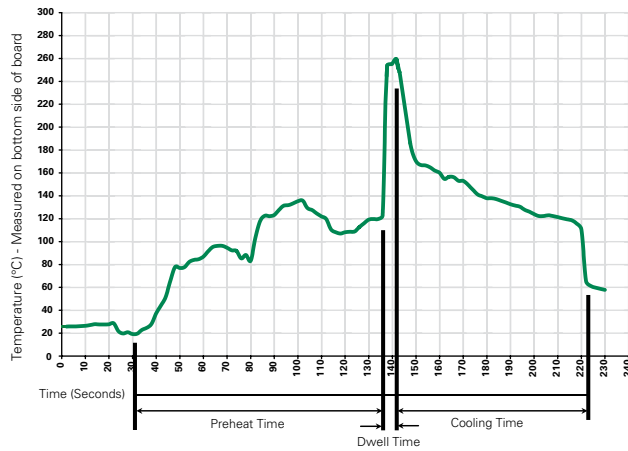


### Average Time Current Curves



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

### 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.**

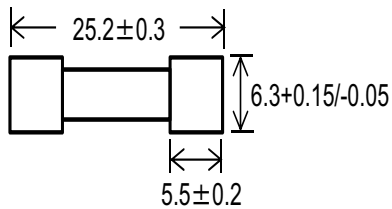
### Product Characteristics

<b>Materials</b>	Body : Ceramic Cap : Tin-plated Copper Leads: Tin-plated Copper
<b>Terminal Strength</b>	MIL-STD-202, Method 211, Test Condition A
<b>Solderability</b>	MIL-STD-202 Method 208
<b>Product Marking</b>	Brand logo, current and voltage ratings, agency approval marks
<b>Packaging</b>	Available in Bulk and Ammo packaging (M=1000 pcs/pkg)

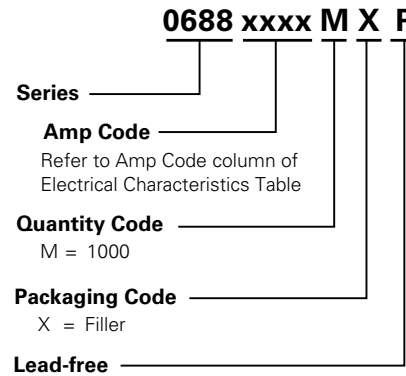
<b>Operating Temperature:</b>	-55°C to 125°C.
<b>Thermal Shock:</b>	MIL-STD-202, Method 107, Test Condition B
<b>Vibration</b>	MIL-STD-202, Method 201
<b>Humidity</b>	MIL-STD-202, Method 103, Test Condition A: High RH (95%) and elevated temp (40°C) for 240 hours
<b>Salt Spray</b>	MIL-STD-202, Method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

### Dimensions

Measurements displayed in millimeters



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>688 Series</b>				
Ammo	N/A	1000	MAT4P	N/A
Bulk	N/A	1000	MX	N/A