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

Agency Approvals

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

Applications

- PDU in Telecom Datacenter
- Wireless Transmission Base Station

Additional Information

Datasheet | Resources | Samples

Electrical Characteristics for Series

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

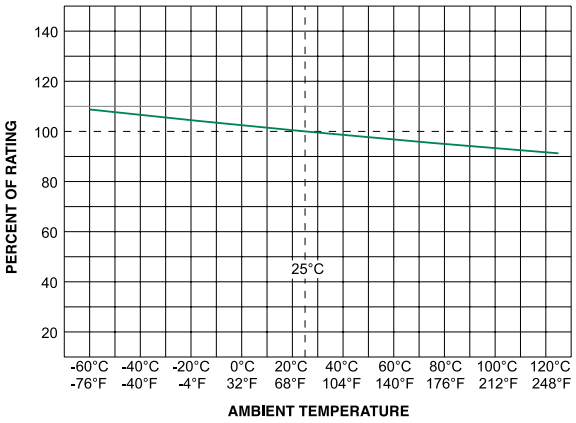
Electrical Characteristic Specifications by Item

Amp Code	Amp Rating	Voltage Rating	Interrupting Rating	Nominal Cold Resistance (mOhms)	Nominal Melting I^2t Under 10In (A^2 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

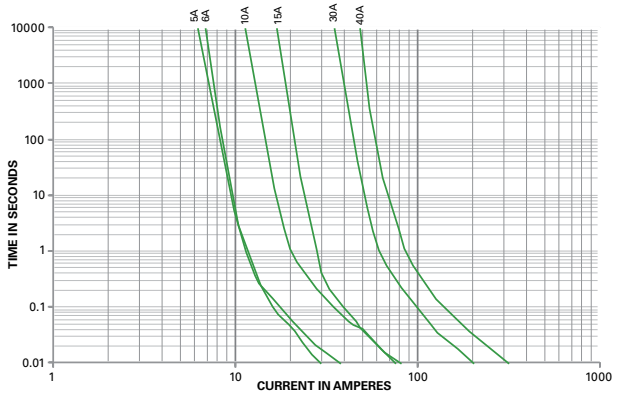
Note: *Surge rating: 1.2/50-8/20µs, 20KV/10KA surge is available for 30A and 40A.

Revised: 07/14/15

Temperature Re-rating Curve

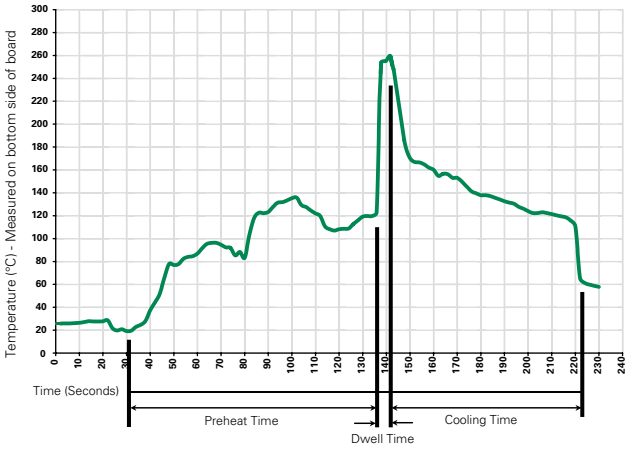


Average Time Current Curves



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
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.

Revised: 07/14/15

Axial Lead & Cartridge Fuses

6x25mm > 70VDC Fuse > 688 Series

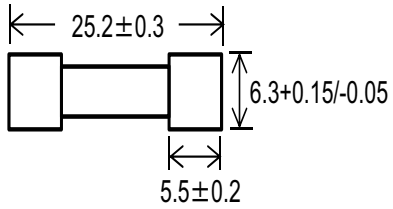
Product Characteristics

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

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 RH (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test Condition B

Dimensions

Measurements displayed in millimeters



Part Numbering System

0688 xxxx M X P

Series

Amp Code
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code
M = 1000

Packaging Code
X = Filler

Lead-free

Packaging

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

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