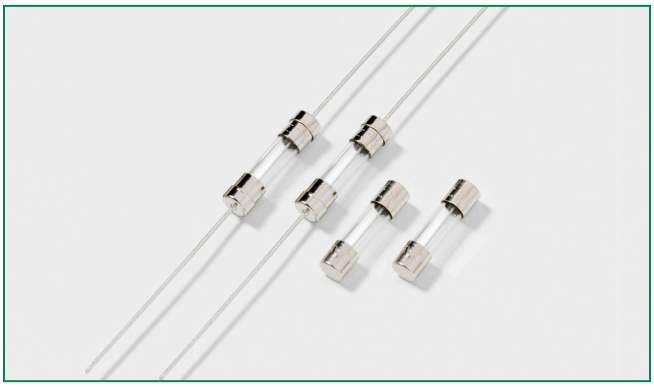
617 Series, 5 × 20 mm, Fast-acting Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	2002010207024438	0.4A-6.3A
	E10480	0.4A-10A
	29862	0.4A-6.3A
	40014952	0.4A-6.3A 8A*, 10A*
	N/A	0.4A-10A

*Approval for cartridge versions only

Description

5×20mm fast-acting glass body cartridge fuse designed to IEC specification.

Features

- Designed to International (IEC) Standards for use globally
- Meets the IEC 60127-2, Sheet 2 specification for fast-acting fuses
- Available in cartridge and axial lead form
- RoHS compliant and lead-free

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
150%	0.4A-6.3A	60 minutes, Minimum
	8A-10A	30 minutes, Minimum
210%	0.4A-6.3A	30 minutes, Maximum
	8A-10A	30 minutes, Maximum
275%	0.4A-6.3A	0.05 sec., Min.; 2 sec. Max.
	8A-10A	0.05 sec., Min.; 2 sec. Max.
400%	0.4A-6.3A	.01 sec., Min.; 0.3 sec. Max.
	8A-10A	.01 sec., Min.; 0.4 sec. Max.
1000%	0.4A-6.3A	.02 second, Maximum
	8A-10A	.04 second, Maximum

Additional Information

Datasheet | Resources | Samples

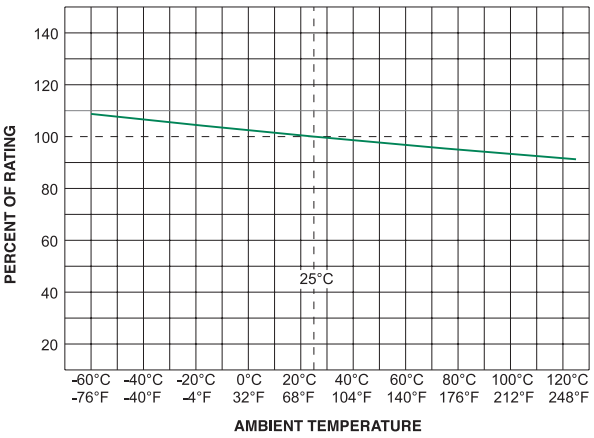
Revised: 06/18/15

Electrical Characteristic Specifications by Item

Amp Code	Amp Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec)	Maximum Voltage Drop at Rated Current (mV)	Maximum Power Dissipation At 1.5In(W)	Agency Approvals				
.400	0.4	250	35A@250Vac	0.2770	0.12500	1200	1.6	x	x	x	x	x
.500	0.5	250		0.2065	0.21500	1000	1.6	x	x	x	x	x
.630	0.63	250		0.1900	0.41000	650	1.6	x	x	x	x	x
.800	0.8	250		0.1203	0.85000	240	1.6	x	x	x	x	x
001.	1	250		0.0964	1.04500	200	1.6	x	x	x	x	x
1.25	1.25	250		0.0701	2.23000	200	1.6	x	x	x	x	x
01.6	1.6	250		0.0528	4.61500	190	1.6	x	x	x	x	x
002.	2	250		0.0416	5.73000	170	1.6	x	x	x	x	x
02.5	2.5	250		0.0334	9.46000	170	1.6	x	x	x	x	x
3.15	3.15	250		0.0224	17.72000	150	2.5	x	x	x	x	x
004.	4	250	40A@250Vac	0.0165	29.16500	130	2.5	x	x	x	x	x
005.	5	250	50A@250Vac	0.0137	42.79500	130	2.5	x	x	x	x	x
06.3	6.3	250	63A@250Vac	0.0095	62.46500	130	2.5	x	x	x	x	x
008.	8	250	80A@250Vac	0.0068	198.16000	130	4		x		x	x*
010.	10	250	100A@250Vac	0.0063	217.63500	130	4		x		x	x*

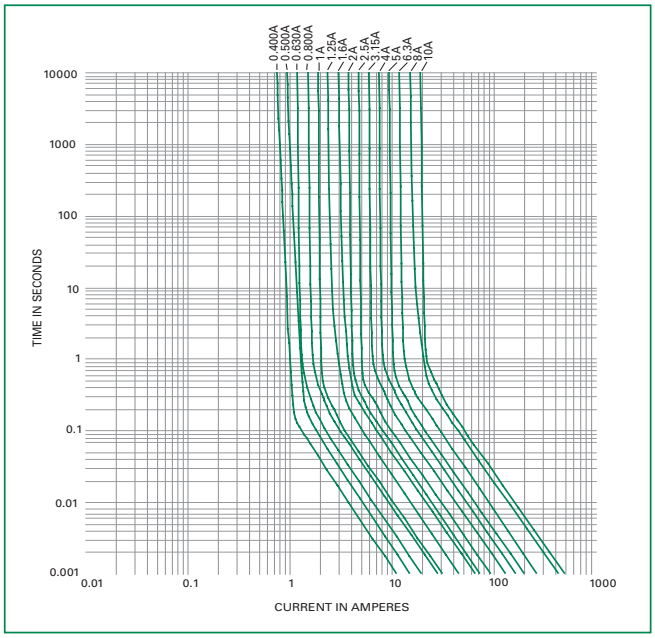
* Approval for cartidge versions only.

Temperature Re-rating Curve



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

Average Time Current Curves

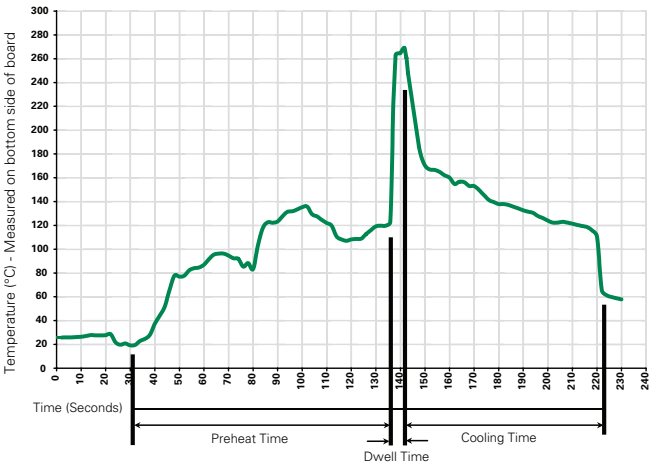


Revised: 06/18/15

Axial Lead & Cartridge Fuses

5×20 mm > Fast-Acting > 617 Series

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.

Product Characteristics

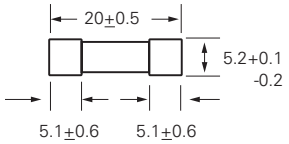
Material	Body: Glass Cap: Nickel–plated brass Leads: Tin–plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 method 208
Product Marking	Cap1: Brand logo, current and voltage ratings Cap2: Agency approval marks
Packaging	Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)

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

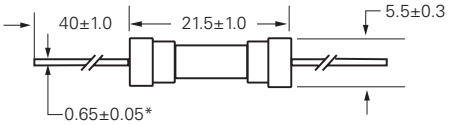
Revised: 06/18/15

Dimensions

0617 000P



0617.400 XEP
to
0617010 XEP



All dimensions in mm

Notes:
* Ratings above 6.3A have 0.8±0.05 diameter lead.

Part Numbering System

0617 xxxx M X E P

Series

Amp Code
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code
M = 1000

Packaging Code
X = Filler

Option Codes
Blank = Cartridge Type Fuse
E = Axial Leaded Fuse

Lead-free

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
617 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Reel and Tape	EIA 296-E	1000	MRET1	T1=53mm (2.087")
Bulk	N/A	1000	MXG	N/A
Bulk	N/A	1000	MXB	N/A
Bulk	N/A	100	HX	N/A

Revised: 06/18/15

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