imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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



Agency Approvals

Agency Agency File Number Ampere Range								
Agency	. ,	Ampere Range						
PS H	Cartridge: NBK090205-E10480A NBK120802-E10480C Leaded: NBK090205-E10480B NBK120802-E10480D	1A – 5A 6.3A – 15A 1A – 5A 6.3A – 15A						
	2002010207007600	0.032A – 6.3A						
M	SU05001-3004 SU05001-2005 SU05001-2006 SU05001-2007	0.032A - 0.04A 0.05A - 0.315A 0.4A - 6.3A 8A & 10A						
c AL °us	E10480	0.032A – 10A						
() ()	29862	0.032A – 6.3A						
(2)	1517221	0.032A – 6.3A						
DE	40014645	0.032A – 6.3A, 8A*, 10A*						
VDE	40016647	15A*						
$\overleftarrow{\nabla}$	KM41462	0.4A – 6.3A						
Œ	N/A	0.032A – 15A						
*Approval for	cartridge versions only							

Description

 $5{\times}20\text{mm}$ fast-acting glass body cartridge fuse designed to IEC specification.

RoHS ❷ ♥ ▲ 🔬 📓 🐨 🕺 🐨 🖉

Features

- Designed to International (IEC) Standards for use globally
- Available in cartridge and axial lead form
- Meets the IEC 60127-2, Sheet 2 specification for fast-acting fuses
- 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	OpeningTime		
	0.032A-0.100A	60 minutes, Minimum		
150%	0.125A-6.3A	60 minutes, Minimum		
	8A-15A	30 minutes, Minimum		
	0.032A-0.100A	30 minutes, Maximum		
210%	0.125A-6.3A	30 minutes, Maximum		
	8A-15A	30 minutes, Maximum		
	0.032A-0.100A	0.01 sec., Min.; .5 sec. Max.		
275%	0.125A-6.3A	0.05 sec., Min.; 2 sec. Max.		
	8A-15A	0.05 sec., Min.; 2 sec. Max.		
	0.032A-0.100A	.003 sec., Min.; 0.1 sec Max.		
400%	0.125A-6.3A	.01 sec., Min.; 0.3 sec. Max.		
	8A-15A	.01 sec., Min.; 0.4 sec. Max.		
	0.032A-0.100A	.02 second, Maximum		
1000%	0.125A-6.3A	.02 second, Maximum		
	8A-15A	.04 second, Maximum		

Additional Information



For recommended fuse accessories for this product series, see '<u>Recommended Accessories</u>' section.

Axial Lead & Cartridge Fuses

5×20 mm > Fast-Acting > 217 Series

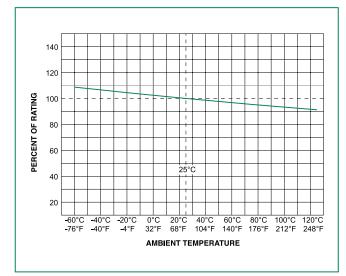


Electrical Characteristic Specifications by Item	Electrical	Charac	teristic S	pecifica	tions	by Item
--	------------	--------	------------	----------	-------	---------

				Nominal		Maximum	Maximum				Ageno	у Арр	roval	s		
Amp Code	Amp Rating (A)	Voltage Rating (V)	Interrupting Rating	Cold Resistance (Ohms)	Nominal Melting I²t (A² sec)	Voltage Drop at Rated Current (mV)	Power Dissipation At 1.5In(W)	$\overleftarrow{\nabla}$	K) ()	RS m	c FN us	()	\bigcirc	Œ	
.032	0.032	250		262.2000	0.00015	10000	1.6		x	x		x	×	x	×	х
.040	0.04	250		183.1500	0.00008	8000	1.6		x	x		x	x	x	x	х
.050	0.05	250		15.2000	0.00049	7000	1.6		x	x		x	x	x	x	х
.063	0.063	250		10.4500	0.00056	5000	1.6		x	x		x	x	x	x	x
.080	0.08	250		7.8900	0.00132	4000	1.6		x	x		x	x	x	x	x
.100	0.1	250		5.6965	0.00260	3500	1.6		x	x		x	x	x	x	x
.125	0.125	250		3.8200	0.00478	2000	1.6		x	x		x	x	x	x	x
.160	0.16	250		2.5250	0.01000	2000	1.6		х	x		x	x	x	x	x
.200	0.2	250		1.7000	0.02000	1700	1.6		х	x		x	x	x	x	x
.250	0.25	250		1.2325	0.04000	1400	1.6		x	x		x	x	x	x	x
.315	0.315	250	35A @ 250VAC	0.8800	0.11000	1300	1.6		x	x		x	x	x	x	x
.400	0.4	250		0.2770	0.12500	1200	1.6	х	x	x		x	x	x	x	x
.500	0.5	250		0.2065	0.21500	1000	1.6	х	x	x		x	x	x	x	x
.630	0.63	250		0.1900	0.41000	650	1.6	х	x	x		x	x	x	x	x
.800	0.8	250		0.1203	0.85000	240	1.6	х	x	x		x	x	x	x	х
001.	1	250		0.0964	1.04500	200	1.6	х	x	x	x	x	x	x	x	x
1.25	1.25	250		0.0701	2.23000	200	1.6	х	x	x	x	x	x	x	x	х
01.6	1.6	250		0.0528	4.61500	190	1.6	х	x	x	x	x	x	x	x	x
002.	2	250		0.0416	5.73000	170	1.6	х	x	x	x	x	x	x	x	x
02.5	2.5	250		0.0334	9.46000	170	1.6	х	х	x	x	x	x	×	x	x
3.15	3.15	250		0.0224	17.72000	150	2.5	x	x	x	x	x	x	x	x	х
004.	4	250	40A @ 250VAC	0.0165	29.16500	130	2.5	x	x	x	×	x	x	×	x	x
005.	5	250	50A @ 250VAC	0.0137	42.79500	130	2.5	х	x	x	x	x	x	x	x	х
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*
015.	15	250	150A @ 250VAC	0.0040	607.13500	130	4				x				x	x*

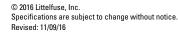
* Approval for cartidge versions only.

Temperature Re-rating Curve

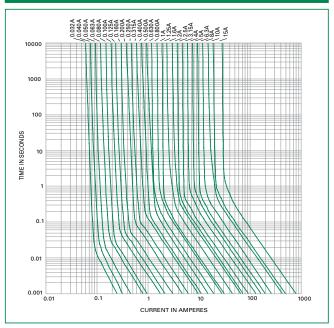


Note:

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

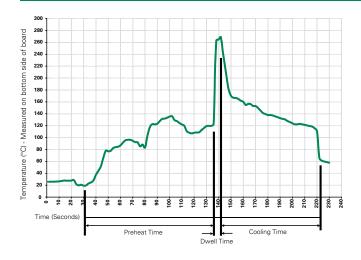


Average Time Current Curves





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

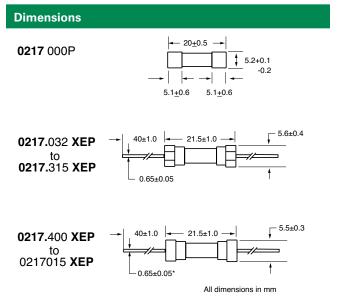
Material	Body: Glass Cap: Nickel–plated brass Leads: Tin–plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 method 208
Product Marking	Cap1: Brand logo, current and voltage ratings Cap2: Agency approval marks
Packaging	Available in Bulk (M=1000 pcs/pkg)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

Axial Lead & Cartridge Fuses

5×20 mm > Fast-Acting > 217 Series





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 Е = Axial Leaded Fuse Lead-free

0217 xxxx M X E P

Part Numbering System

Notes:

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

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
217 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

Recommended Accessories

Accessory Type	Series	Description		Max Application Amperage
	<u>345_ISF</u>	Panel Mount Shock-Safe Fuseholder		10
Holder	<u>345</u>	Shock-Safe Fuseholder with PC Mount, Solder Mount and Panel Mount options		20
	<u>830</u>	PC Mount Shock-Safe Miniature Fuseholder		16
<u>520</u>		Metric OMNI-BLOK® Fuse Block		10
Block	<u>646</u>	PC Mount Miniature Fuse Block	250	6.3
<u>658</u>		Surface Mount Miniature Fuse Block		10
	<u>520_W</u>	PC Mount Miniature Fuse Clip		6.3
Clip	<u>111</u>	PC Board Mount Fuse Clip		10
	<u>445</u>	PC Board Mount Fuse Clip		10

Notes:

Do not use in applications above rating.
Please refer to fuseholder data sheet for specific re-rating information.
Please contact factory for applications greater than the max voltage and amperage shown.

© 2016 Littelfuse, Inc. Specifications are subject to change without notice. Revised: 11/09/16