

RoHS

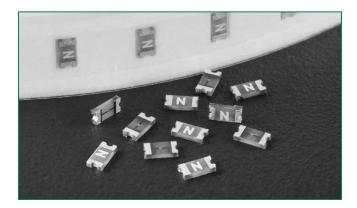


467 Series Fuse









Agency Approvals

Agency	Agency File Number	Ampere Range
. 9 1	E10480	250mA - 5A
⊕ ®	LR29862	250mA - 5A

Electrical Characteristics for Series

% of Ampere Rating	Opening Time at 25°C		
100%	4 hours, Minimum		
200%	5 sec., Maximum		
300%	0.2 sec., Maximum		

Description

The 467 series fast-acting surface mount fuse series is an ultra small (0603 size) thin-film device designed for secondary protection of circuits used in space constrained applications such as hand-held portable electronic devices. This series is 100% lead-free and meet the requirements of the RoHS directive. New Halide Free 467 series fuses are available, orderable using the "HF" suffix. See Part Numbering section for additional information..

Features

- · Compatible with leadfree solders and higher temperature profiles.
- High performance materials provide improved performance in elevated ambient temperature applications.
- Marked on top surface with code to allow amp rating identification without testing.
- Low profile for height sensitive applications.
- Flat top surface for pickand-place operations.

- Element covering material is resistant to industry standard cleaning operations.
- Mounting pad and electrical performance is identical to Littelfuse 431 and 434 Series products.
- Alloy based element construction provides superior inrush withstand characteristics (I2t) over ceramic or glass based 0603 fuse products.

Applications

Secondary protection for space constrained applications:

- Cell phones
- Digital cameras Hard disk drives.
- · Battery packs
- DVD players

Electrical Specifications by Item

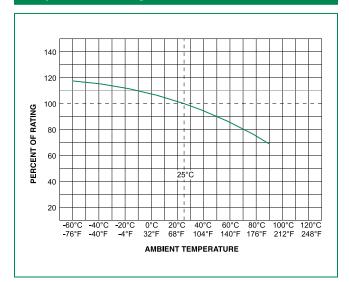
Amnere	Ampere Max		Interrupting Rating	Nominal Cold Resistance Melting (Ohms) I²t (A²sec)	Nom Voltage Drop (mV)	Nom Power Dissipation (W)	Agency Approvals		
Rating Code Rat	Voltage Rating (V)	. 7 1					⊕ ®		
0.250	.250	32		0.5450	0.0030	158.56	0.0396	X	X
0.375	.375	32		0.2900	0.0053	128.03	0.0480	х	х
0.500	.500	32	50A @32V AC/DC	0.1870	0.0087	115.71	0.0579	х	X
0.750	.750	32		0.1170	0.0171	107.33	0.0805	X	Х
1.00	001.	32		0.0710	0.0212	89.10	0.0891	X	X
1.25	1.25	32	35A @32V AC/DC	0.0530	0.0518	84.32	0.1054	X	X
1.50	01.5	32		0.0410	0.0766	81.14	0.1217	X	X
1.75	1.75	32		0.0320	0.0903	78.75	0.1378	X	X
2.00	002.	32		0.0300	0.1103	78.22	0.1564	Х	X
2.50	02.5	32		0.0220	0.1440	76.10	0.1903	X	X
3.00	003.	32		0.0180	0.2403	75.04	0.2251	X	Х
3.50	03.5	32		0.0150	0.4306	74.25	0.2599	×	Х
4.00	004.	32		0.0130	0.5760	73.72	0.2949	×	Х
5.00	005.	32		0.0090	0.9000	72.71	0.3635	Х	Х

^{1.} Measured at 10% of rated current, 25°C. ©2008 Littelfuse, Inc.

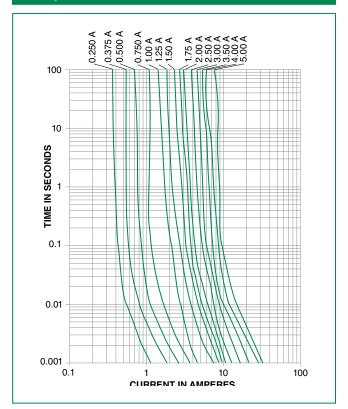
^{2.} Measured at rated voltage



Temperature Rerating Curve

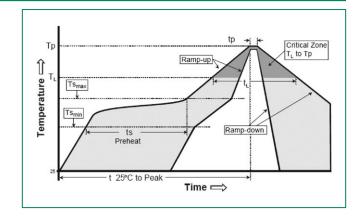


Average Time Current Curves



Soldering Parameters - Wave Soldering

Reflow Co	ndition	Pb – Free assembly	
	-Temperature Min (T _{s(min)})	150°C	
Pre Heat	-Temperature Max (T _{s(max)})	200°C	
	-Time (Min to Max) (t _s)	60 – 180 secs	
Average ra	amp up rate (Liquidus Temp k	5°C/second max	
T _{S(max)} to T _L	- Ramp-up Rate	5°C/second max	
Reflow	-Temperature (T _L) (Liquidus)	217°C	
	-Temperature (t _L)	60 – 150 seconds	
PeakTemp	erature (T _P)	250 ^{+0/-5} °C	
Time within 5°C of actual peak Temperature (t _p)		20 – 40 seconds	
Ramp-dov	vn Rate	5°C/second max	
Time 25°C	to peakTemperature (T _P)	8 minutes Max.	
Do not exc	ceed	260°C	



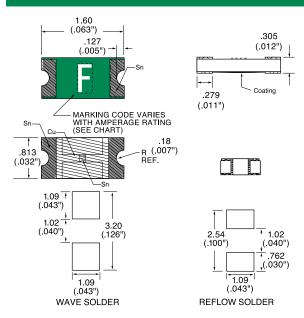
Surface Mount Fuses Thin Film > 0603 Size > Very Fast Acting > 467 Series

Product Characteristics

Materials	Body: Advanced High Temperature Substrate Terminations: 100% Tin over Nickel over Copper Element Cover Coat: Conformal Coating
Operating Temperature	– 55°C to 90°C. Consult temperature rerating curve chart. For operation above 90°C contact Littelfuse.
Humidity	MIL-STD-202F Method 103B Condition D

Thermal Shock	Withstands 5 cycles of – 55°C to 125°C		
Vibration	Per MIL-STD-202F		
Insulation Resistance (After Opening)	Greater than 10,000 ohms.		
Resistance to Soldering Heat	Withstands 60 seconds above 200°C and up to 260°C, maximum		

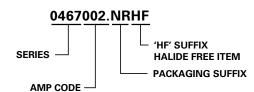
Dimensions



Part Marking System

Amp Code	Marking Code
.250	D
.375	E
.500	F
.750	G
001.	Н
1.25	J
01.5	К
1.75	L
002.	N
02.5	0
003.	Р
03.5	R
004.	S
005.	Т

Part Numbering System



The dot is positioned before the Packaging Suffix with whole ratings and within the numbering sequence for fractional ratings.

Refer to Amp Code column in the Electrical Specifications table.

Example: 1.5 amp product is 0467<u>01.5</u>NRHF (2 amp product shown above)

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
8mm Tape and Reel	EIA RS-481-2 (IEC 286, part 3)	5000	NR