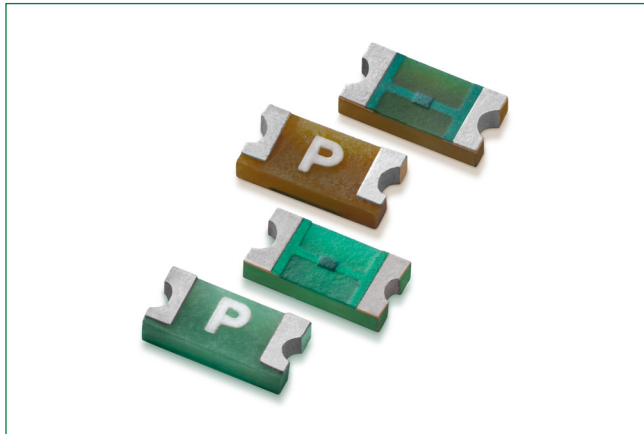


467 Series

0603 Fast-Acting Fuse



Additional Information



Resources



Accessories



Samples

Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.250 A - 5 A
	29862	0.250 A - 5 A
	R50466439	0.250 A - 5 A

Electrical Characteristics

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

Electrical Specifications

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Nom Voltage Drop (mV)	Nom Power Dissipation (W)	Agency Approvals		
0.250	.250	32	50A @32V AC/DC	0.5650	0.0014	158.56	0.0396	x	x	x
0.375	.375	32		0.3000	0.0035	128.03	0.0480	x	x	x
0.500	.500	32		0.1870	0.0087	138.50	0.0693	x	x	x
0.750	.750	32		0.1170	0.0171	123.30	0.0925	x	x	x
1.00	001.	32		0.0700	0.0212	67.40	0.0674	x	x	x
1.25	1.25	32	35A @32V AC/DC 13A @65V DC	0.0510	0.0518	84.32	0.1054	x	x	x
1.50	01.5	32		0.0385	0.0766	71.60	0.1074	x	x	x
1.75	1.75	32	35A @32V AC/DC	0.0310	0.0903	78.75	0.1378	x	x	x
2.00	002.	32		0.0280	0.1891	78.22	0.1564	x	x	x
2.50	02.5	32		0.0210	0.2066	76.10	0.1903	x	x	x
3.00	003.	32		0.0170	0.2403	75.04	0.2251	x	x	x
3.50	03.5	32		0.0139	0.4306	65.30	0.2286	x	x	x
4.00	004.	32		0.0118	0.8410	63.10	0.2524	x	x	x
5.00	005.	32		0.0089	0.9000	61.20	0.3060	x	x	x

1. Measured at 10% of rated current, 25°C.

2. Measured at rated voltage.

Description

The 467 Series Fast-Acting Surface Mount Fuse (SMF) 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 meets the requirements of the RoHS directive. New Halogen-Free 467 Series fuses are available—to order use the “HF” suffix. See Part Numbering section for additional information..

Features & Benefits

- Compatible with lead-free 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 pick-and-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
- Halogen free, Lead-free and RoHS compliant
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to EN 60127-1 and EN 60127-7

Applications

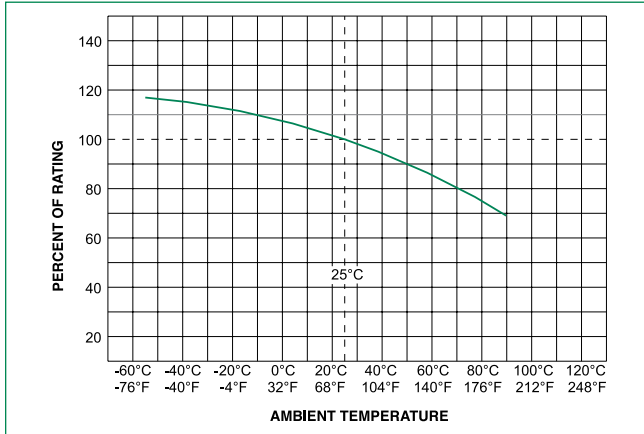
Secondary protection for space constrained applications:

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

467 Series

0603 Fast-Acting Fuse

Temperature Derating Curve

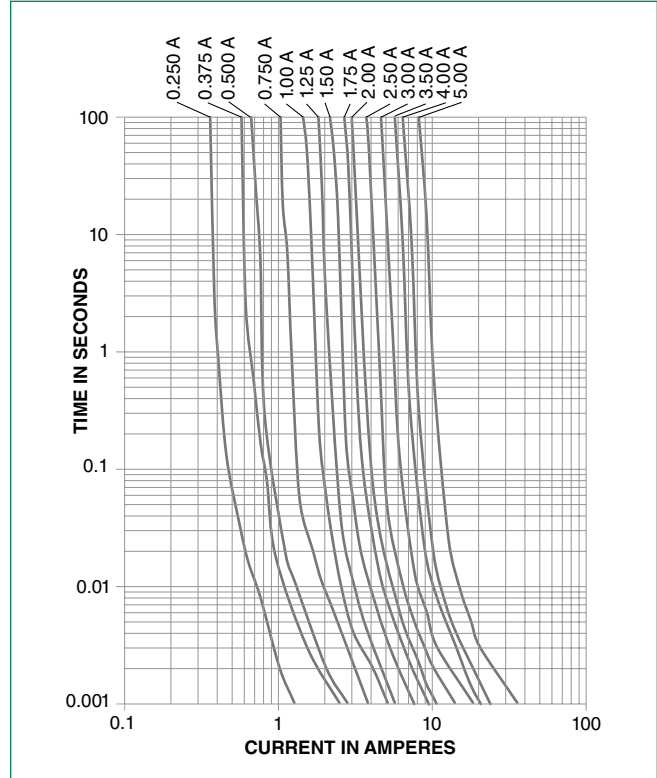


Note:
1. Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Example:
For continuous operation at 70 degrees celsius, the fuse should be derated as follows:
 $I = (0.75)(0.80)_{\text{RAI}} = (0.60)_{\text{RAI}}$

2. The temperature derating curve represents the nominal conditions. For questions about temperature derating curve, please consult Littelfuse technical support for assistance.

Average Time Current Curves



Soldering Parameters

Reflow Condition	Pb – Free assembly	
Pre Heat	- Temperature Min ($T_{s(\text{min})}$)	150°C
	- Temperature Max ($T_{s(\text{max})}$)	200°C
	- Time (Min to Max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)	5°C/second max	
$T_{s(\text{max})}$ to T_L - Ramp-up Rate	5°C/second max	
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)	250 ^{+0/-5} °C	
Time within 5°C of actual peak Temperature (t_p)	20 – 40 seconds	
Ramp-down Rate	5°C/second max	
Time 25°C to peak Temperature (T_p)	8 minutes Max.	
Do not exceed	260°C	

Wave Soldering	260°C, 10 seconds max.
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