SMD Autofuse

Littelfuse
Expertise Applied | Answers Delivered



SMD Autofuse

SMD Autofuse Rated 18V

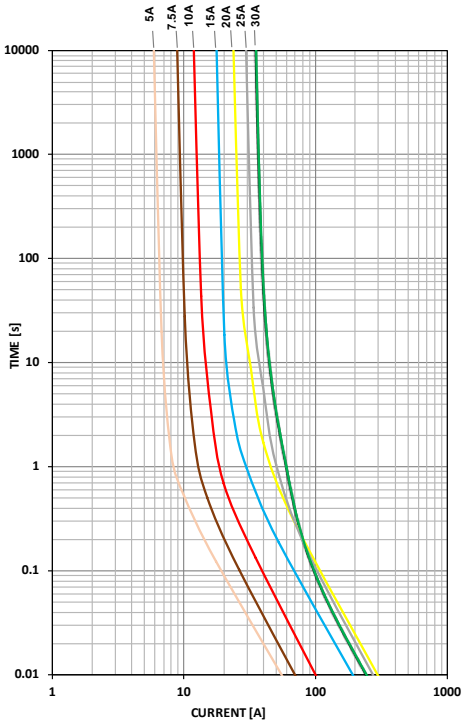
The SMD Autofuse is a new surface-mountable fuse that's designed to perform similarly to traditional automotive blade fuses where ease of replacement is not desired or required. The implementation of the SMD autofuse offers space savings and systems savings without performance sacrifices.

Specifications

Voltage Rating:	18 VDC
Interrupting Rating:	1000A @18 VDC
Recommended Environmental Temperature:	-40°C to +105°C
Terminals Material:	Tin plated zinc alloy
Housing Material:	LCP (U.L. 94 Flammability Rating - HB)
Net Weight Per Fuse:	0.27±15% gr
Complies with:	SAE 2741 and ISO 8820-12 in reference to electrical and environmental performance requirements

RoHS

Time-Current Characteristic Curves



Ordering Information

Part Number	Rating	Package Size
0317xxx.M	5 - 30 & SHUNT	1000

Time-Current Characteristics

% of Rating	Opening Time Min / Max (s)
110	360,000 / ∞
135	0.75 / 120
160	0.3 / 50
200	0.15 / 5
350	0.04 / 0.5
600	0.02 / 0.1

Ratings

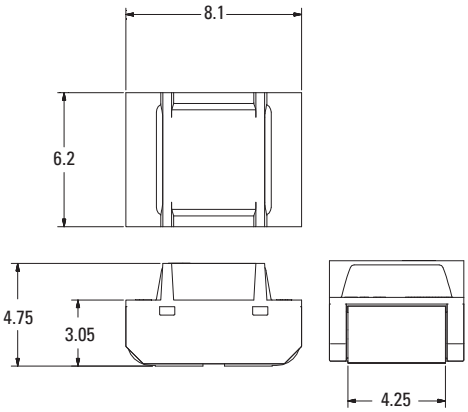
Part Number	Current Rating (A)	Typ. Voltage Drop (mV)	Typ. Cold Resistance (mΩ)	Typ. I^2t (A^2s)
0317005.M [1]	5	121	16.24	26
031707.5M [1]	7.5	104	9.81	36
0317010.M	10	90	6.73	71
0317015.M [1]	15	109	4.61	320
0317020.M	20	84	3.21	728
0317025.M [1]	25	87	2.43	652
0317030.M [1]	30	75	1.85	503
0317900.M [1]	SHUNT	50	1.39	--

Note 1: Under development

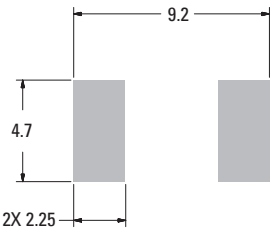
The typical I^2t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

Dimensions

Dimensions in mm for reference only. See outline drawing for dimensions and tolerances



Recommended Pad Printing



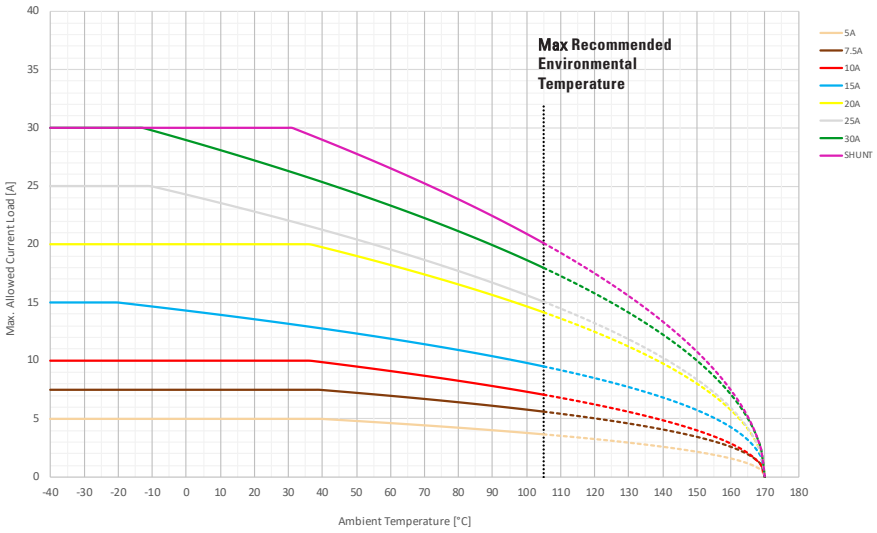
REV07272021

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Typical Derating Of Fuse Melting Element

Temperature Security Margin is 20%
Trace Cross-Section Based On IPC Standard (70% In and 30K rise)
Please contact Littelfuse® for details regarding Derating Test Set Up.

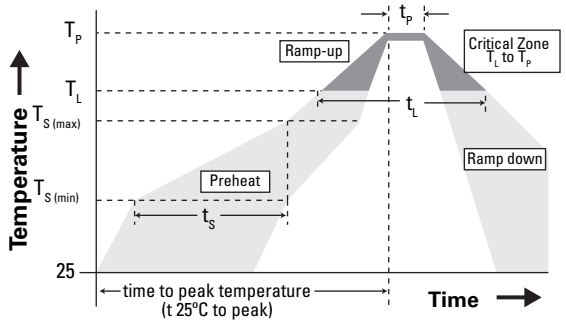


Temperature Table

	max. allowed current load [A] at ambient temperature (typical derating)						
	-40°C	0°C	20°C	65°C	85°C	110°C	125°C
5A	5	5	5	5	4	4	3
7.5A	7.5	8	8	7	6	5	5
10A	10	10	10	9	8	7	6
15A	15	14	14	12	11	9	8
20A	20	20	20	18	16	14	12
25A	25	24	23	19	17	14	13
30A	30	29	27	23	21	17	15
SHUNT	30	30	30	26	23	19	17

Soldering Parameters

Pre Heat	**Temperature Min (T_s min)**	150 °C
	Temperature Max (T_s max)	200 °C
	Time (min to max) (t_s)	40 - 80 secs
Reflow	**Temperature (T_L) (Liquidus)**	220 °C
	Time (t_L)	45 - 90 secs
Peak Temperature (Tp)		235 - 250 °C
Ramp-down Rate		< 2.5 °C / Sec
Do not exceed		260 °C



Packaging

Packaging Option	Package Specification	Quantity	Quantity & Packaging Code
16mm Tape and Reel	EIA-481	1000 pcs per reel	MR

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