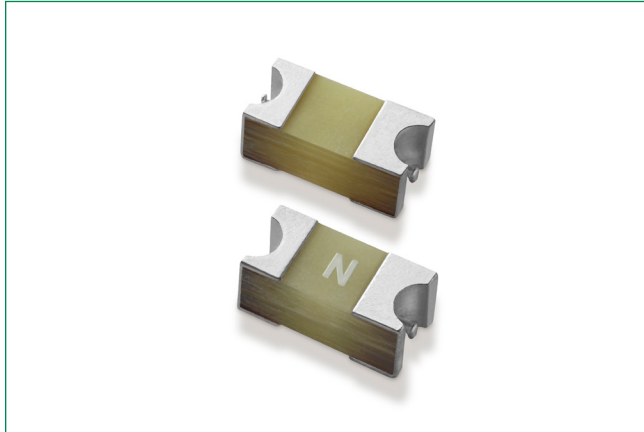


Surface Mount Fuses

Thin Film Fuse > 1206 High I²t > 483 Series



Description

The 483 series belongs to the family of high-energy SMD fuses, perfect for space constrained applications. It offers the standard Nano Fuse circuit protection capability with a very small 1206 foot print. This product is RoHS compliant, Halogen-Free and 100% Pb-Free with guaranteed operating temperature of up to 125 °C.

Features

- Very small 1206 footprint
- Fast-acting
- Pb-free, RoHS compliant and Halogen-free
- Wide operating temperature range of -55 °C to 125 °C

Benefits

- Single fuse solution for high current application
- Suitable for a wide variety of voltage requirements and applications

Applications

- LED lighting
- LCD/LED TVs
- Notebooks/PCs
- Gaming consoles
- Power supply units
- Telecom systems
- White goods
- Battery charging circuit protection

Agency Approvals

Agency	Agency File Number	Ampere Range
cULus	E10480	0.375 A – 15 A

Electrical Characteristics

% of Ampere Rating	Opening Time
100%	4 Hours, Minimum
250%	5 Seconds, Maximum

Additional Information



Resources



Accessories



Samples

Surface Mount Fuses

Thin Film Fuse > 1206 High I²t > 483 Series

Electrical Specifications

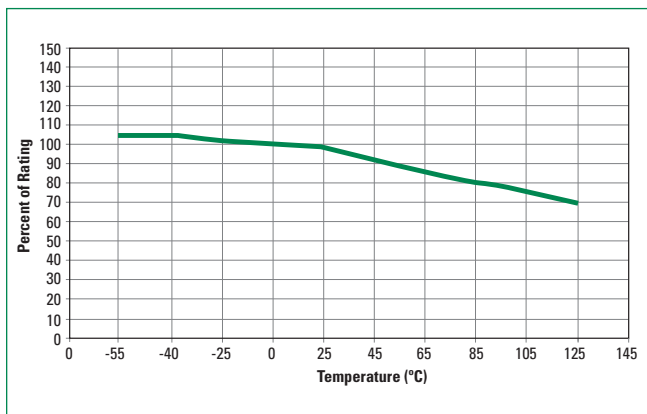
Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec.)	Agency Approvals
						
0.375	0.375	75	50A @ 75VDC/VAC	0.530	0.027	x
0.500	0.500	75		0.380	0.065	x
0.750	0.750	75		0.235	0.150	x
1.00	001.	75		0.165	0.310	x
1.25	1.25	75		0.133	0.550	x
1.50	01.5	75		0.103	0.800	x
2.00	002.	75		0.073	2.000	x
2.50	02.5	65	50A @ 65VDC/VAC	0.061	2.500	x
3.00	003.	65		0.051	4.000	x
3.15	3.15	65		0.048	4.800	x
3.50	03.5	65	50A @ 65VDC 50A @ 50VAC	0.040	6.500	x
4.00	004.	65		0.036	8.500	x
5.00	005.	65	50A @ 65VDC 50A @ 32VAC	0.027	13.00	x
6.30	06.3	65		0.0078	5.000	x
7.00	007.	32	50A @ 32VDC/VAC	0.0071	6.100	x
8.00	008.	32		0.0057	10.00	x
10.0	010.	32		0.0045	16.00	x
12.0	012.	32		0.0040	25.00	x
15.0	015.	32		0.0030	41.00	x

Note: I²t values stated for 8 msec opening time.

Surface Mount Fuses

Thin Film Fuse > 1206 High I²t > 483 Series

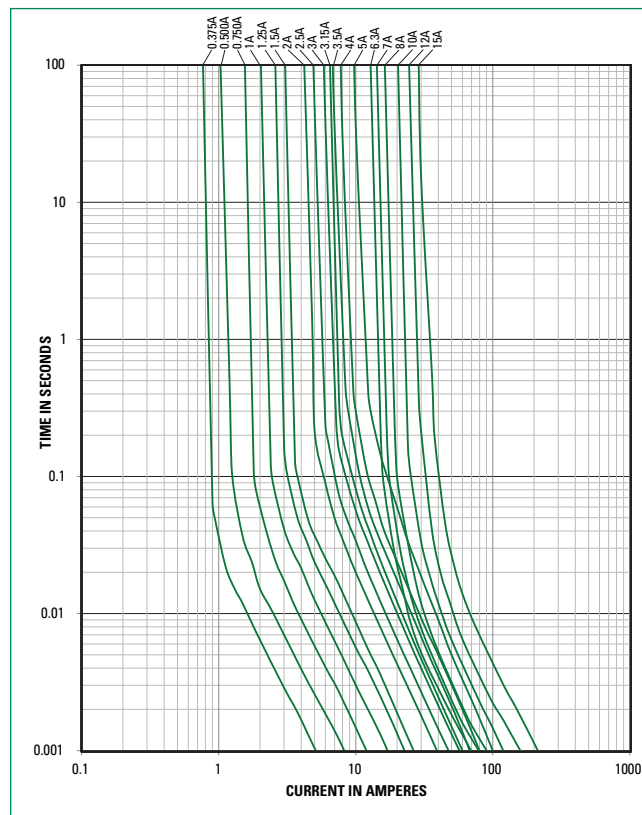
Temperature Re-rating Curve



Note

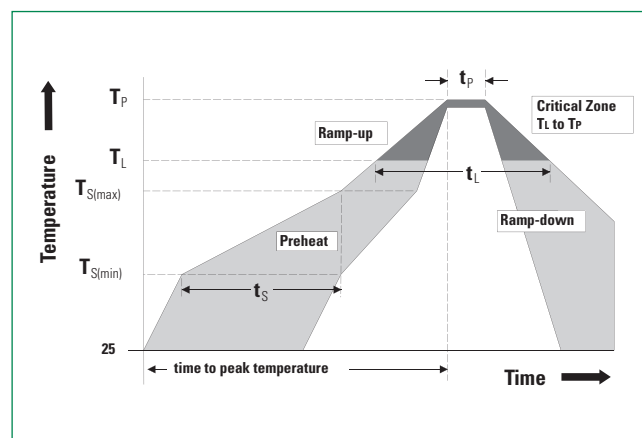
Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150 °C
	- Temperature Max ($T_{s(max)}$)	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.
$T_{s(max)}$ to T_L - Ramp-up Rate		5 °C/second max.
Reflow	- Temperature (T_L) (Liquidus)	217 °C
	- Temperature (t_L)	60–150 secs
Peak Temperature (T_p)		260+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



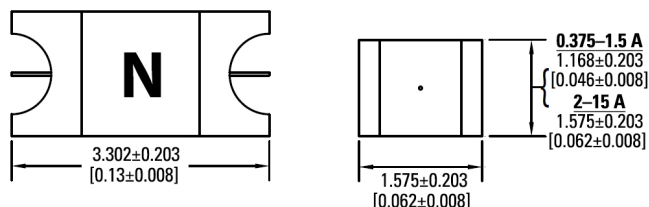
Surface Mount Fuses

Thin Film Fuse > 1206 High I²t > 483 Series

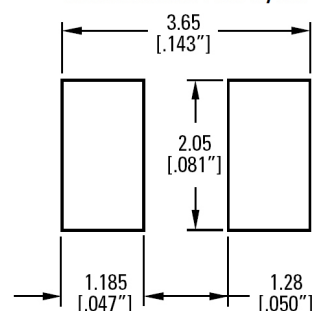
Product Characteristics

Materials	Body: Epoxy Resin Terminations: Cu/Ni/Sn (100% Pb-free)
Product Marking	Body: Current Rating
Operating Temperature	-55 °C to +125 °C
Solderability	MIL-STD-202
Thermal Shock	MIL-STD-202, Method 107, Test Condition B, 5 cycles, -65 °C to 125 °C, 15 minutes @ each extreme
Mechanical Shock	MIL-STD-202, Method 213B, Test Condition I: De-energized. 100G's peak amplitude, sawtooth wave 6 ms duration, 3 cycles XYZ+xyz = 18 shocks
Vibration	MIL-STD-202, Method 201: 0.03" amplitude, 10-55 Hz in 1 min. 2 hrs. each XYZ = 6 hrs
Moisture Resistance	MIL-STD-202, Method 106, 10 cycles Condition A
Salt Spray	MIL-STD-202, Method 101, Test Condition B (48 hrs)
Resistance to Soldering Heat	Method 210, Test Condition B (10 sec at 260 °C)

Dimensions mm [inch]



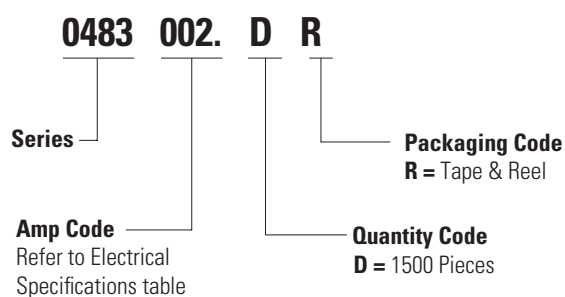
Recommended Pad Layout



Part Marking System

Amp Code	Marking Code
0.375	E
0.500	F
0.750	G
001.	H
1.25	J
01.5	K
002.	N
02.5	O
003.	P
3.15	B
03.5	C
004.	S
005.	T
06.3	U
007.	V
008.	Z
010.	10
012.	12
015.	15

Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
8 mm Tape and Reel	EIA-481	1500	DR	N / A

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.