

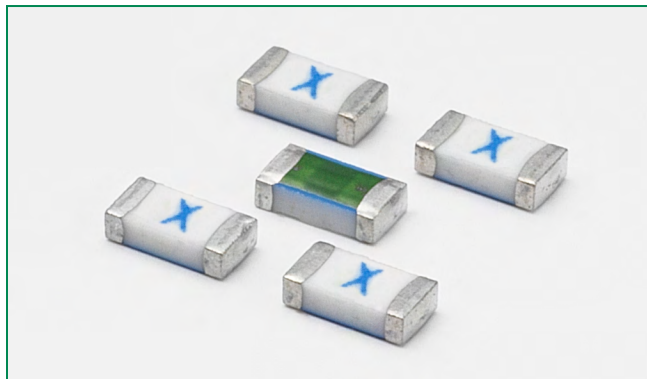
阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

440 Series, 1206 High I²t Fuse



Description

The 440 Series is a 100% Lead-free, RoHS compliant and Halogen-free fuse series designed specifically to provide over-current protection to circuits that operate under high working ambient temperatures up to 150°C and high inrush currents. The general design ensures excellent temperature stability and performance reliability. This high I²t fuse series is designed to have ultra high inrush current withstand capability to avoid nuisance fuse open.

Features

- Operating Temperature from -55°C to +150°C
- 100% Lead-free, RoHS compliant and Halogen-free
- Suitable for both leaded and lead-free reflow / wave soldering
- Ultra high I²t values

Applications

- LCD Displays
- Servers
- Notebook Computers
- Printers
- Scanners
- Data Modems
- Hard Disk Drives

Additional Information



Datasheet



Resources



Samples

Agency Approvals

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE
	E10480	.25A - 8A
	29862	.25A - 8A

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time at 25°C
100%	0.25A - 8A	4 hours, Minimum
350%	0.25A - 8A	5 secs., Maximum

Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max. Voltage Rating (V)	Interrupting Rating (AC/DC) ¹	Nominal Resistance (Ohms) ²	Nominal Melting I ² t (A ² Sec.) ³	Nominal Voltage Drop At Rated Current (V) ⁴	Nominal Power Dissipation At Rated Current (W)	Agency Approvals	
0.25	.250	125	50 A @ 125 V AC/DC	2.140	0.00649	0.5260	0.132	x	X
0.375	.375	125		1.216	0.01455	0.4993	0.187	x	X
0.5	.500	63		0.8140	0.02642	0.4831	0.242	x	X
0.75	.750	63	50 A @ 63 V AC/DC	0.4624	0.09312	0.3983	0.299	x	X
1	001.	50	50 A @ 50 V DC 50 A @ 50 V AC	0.3096	0.21054	0.3457	0.346	x	X
1.25	1.25	50		0.2265	0.379	0.3240	0.405	x	X
1.5	01.5	50		0.1759	0.50652	0.3215	0.482	x	X
1.75	1.75	32		0.0450	0.3312	0.0777	0.136	x	X
2	002.	32		0.0385	0.4326	0.0792	0.158	x	X
2.5	02.5	32	50 A @ 32 V AC/DC	0.02850	0.8191	0.0747	0.187	x	X
3	003.	32		0.02252	1.232	0.0742	0.223	x	X
3.5	03.5	32		0.01845	1.789	0.0757	0.265	x	X
4	004.	32		0.01553	2.601	0.0709	0.284	x	X
5	005.	32		0.0120	4.761	0.0654	0.327	x	X
7	007.	32		0.00753	8.464	0.0696	0.487	x	X
8	008.	32		0.00634	12.95	0.0655	0.524	x	X

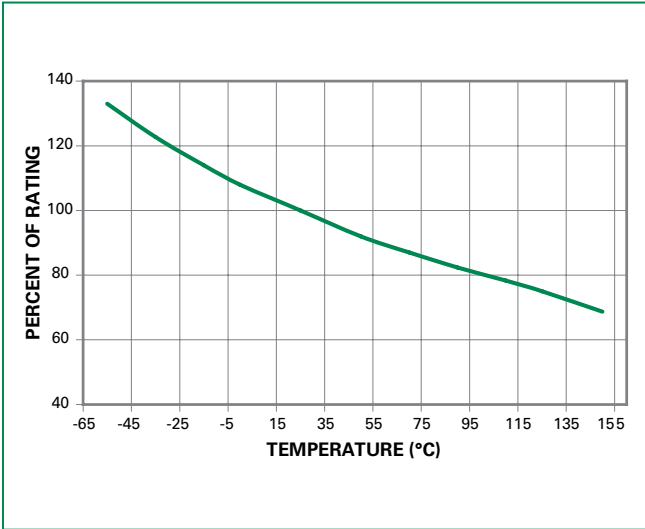
Notes:

1. AC Interrupting Rating tested at rated voltage with unity power factor. DC Interrupting Rating tested at rated voltage with time constant < 0.8 msec.
2. Nominal Resistance measured with < 10% rated current.
3. Contact Littelfuse if application transient surges are less than 1 ms.
4. Nominal Voltage Drop measured at rated current after temperature has stabilized.

Devices designed to carry rated current for 4 hours minimum. It is recommended that devices be operated continuously at no more than 80% rated current. See "Temperature Derating Curve" for additional derating information.

Devices designed to be mounted with marking code facing up.

Temperature Derating Curve



Note:

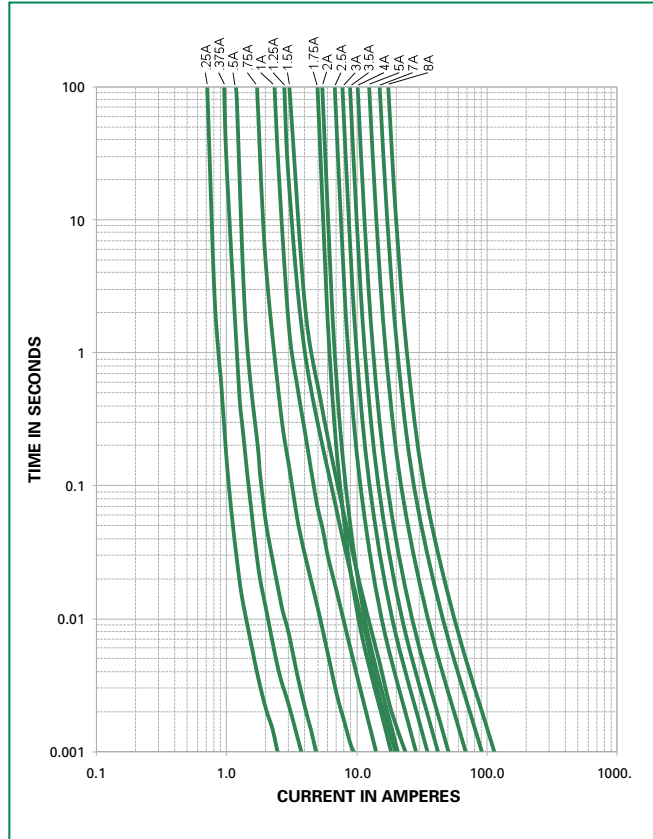
1. Derating depicted in this curve is in addition to the standard derating of 20% for continuous operation.

Example:

For continuous operation at 75 degrees celsius, the fuse should be derated as follows:

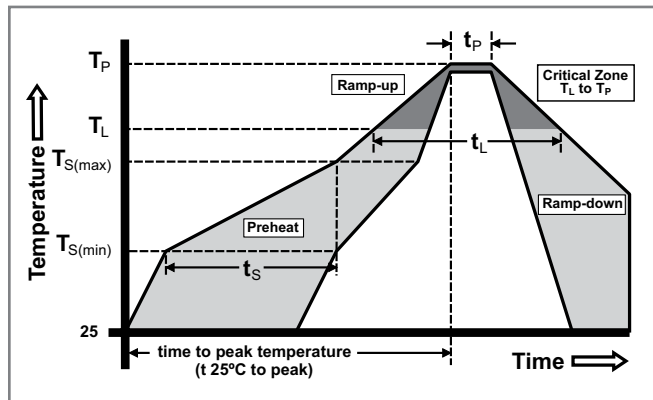
$$I = (0.80)(0.85)I_{RAT} = (0.68)I_{RAT}$$

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 seconds
Average Ramp-Up Rate (Liquidus Temp (T_L) to peak)		3°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
Peak Temperature (T_p)		260 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		10 – 30 seconds
Ramp-down Rate		6°C/second max.
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



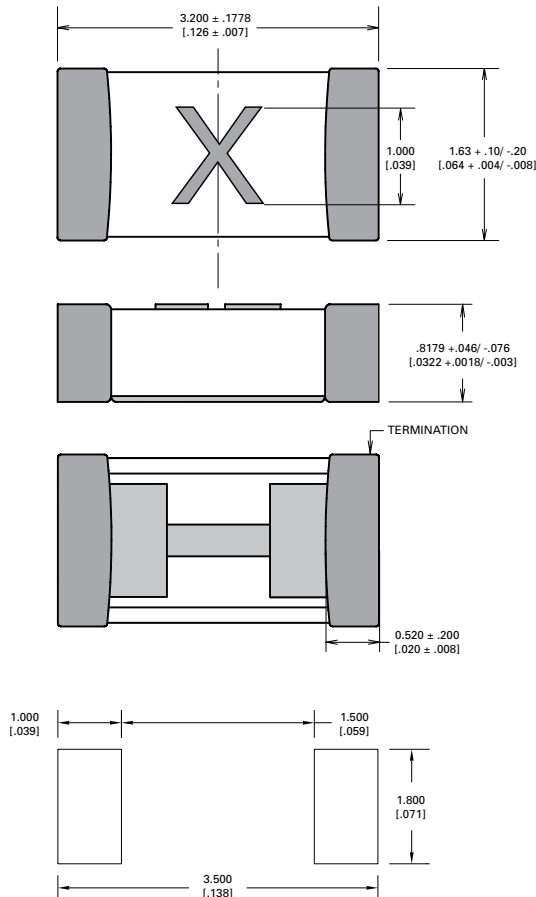
Wave Soldering	260°C, 10 seconds max.
----------------	------------------------

Product Characteristics

Materials	Body: Advanced Ceramic Terminations: Ag / Ni / Sn (100% Lead-free) Element Cover Coating: Lead-free Glass
Moisture Sensitivity Level	IPC/JEDEC J-STD-020, Level 1
Solderability	IPC/ECA/JEDEC J-STD-002, Condition C
Humidity Test	MIL-STD-202, Method 103, Conditions D
Resistance to Solder Heat	MIL-STD-202, Method 210, Condition B

Moisture Resistance	MIL-STD-202, Method 106
Thermal Shock	MIL-STD-202, Method 107, Condition B
Mechanical Shock	MIL-STD-202, Method 213, Condition A
Vibration	MIL-STD-202, Method 201
Vibration, High Frequency	MIL-STD-202, Method 204, Condition D
Dissolution of Metallization	IPC/ECA/JEDEC J-STD-002, Condition D
Terminal Strength	IEC 60127-4

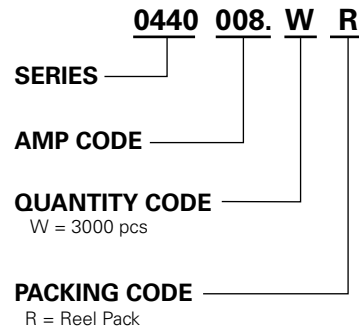
Dimensions



Part Marking System

Amp Code	Marking Code
.250	D
.375	E
.500	F
.750	G
001.	H
1.25	J
01.5	K
1.75	L
002.	N
02.5	O
003.	P
03.5	R
004.	S
005.	T
007.	W
008.	X

Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
8mm Tape and Reel	EIA-481, IEC 60286, Part 3	3000	WR