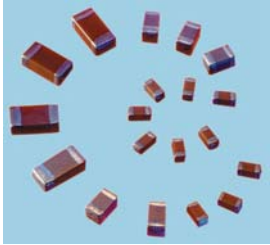


Fast Acting Fuse

SMD Thin Film

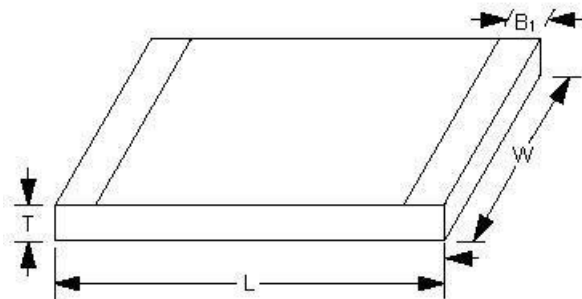


Features:

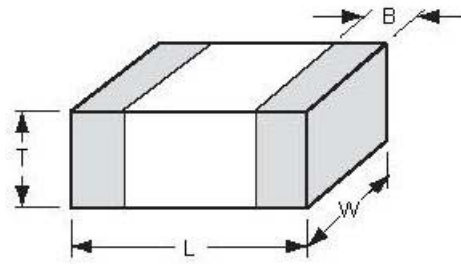
- Accurate current rating.
- Fast acting.
- Small-standard 0402, 0603, 0805, 1206 and 0612 chip sizes.
- Taped and reeled.
- Completely compatible with all soldering systems used for SMT.
- Lead free series (F0402E, F0603E).

Dimensions:

F0805B and F1206B



F0402E and F0603E



Standard Sizes:

	F0402E	F0603E	F0805B	F1206B
L	1.00 ±0.10 (0.039 ±0.004)	1.60 ±0.10 (0.063 ±0.004)	2.10 ±0.20 (0.083 ±0.008)	3.10 ±0.20 (0.122 ±0.008)
W	0.55 ±0.07 (0.022 ±0.003)	0.81 ±0.10 (0.032 ±0.004)	1.27 ±0.10 (0.050 ±0.004)	1.60 ±0.10 (0.063 ±0.004)
T	0.40 ±0.10 (0.016 ±0.004)	0.63 ±0.10 (0.025 ±0.004)	0.90 ±0.20 (0.035 ±0.008)	1.20 ±0.20 (0.047 ±0.008)
B	0.20 ±0.10 (0.008 ±0.004)	0.35 ±0.15 (0.014 ±0.006)	0.30 ±0.15 (0.012 ±0.006)	0.43 ±0.25 (0.017 ±0.010)

Dimensions : Millimetres (Inches)



Fast Acting Fuse

SMD Thin Film



Specifications

Electrical Specifications

Operating Temperature : -55 to +125°C.

Current Carrying Capacity : For F0402E and F0603E: At -55°C, 107% of rating
At -25°C, 100% of rating
At +125°C, 80% of rating.

For F1206B and F0805B: At -55°C, 107% of rating
At +25°C, 100% of rating
At +85°C, 93% of rating
At +125°C, 90% of rating.

For F0805B 2.50A and 3.00A: At +85°C, 90% of rating
At +125°C, 90% of rating.

For F0612D : At -55°C, 107% of rating
At +25°C, 100% of rating
At +85°C, 80% of rating
At +125°C, 75% of rating.

Interrupting Rating : 50A.

Insulation Resistance : > 20MΩ guaranteed (after fusing at rated voltage).

Applications:

- Cellular Telephones.
- Two-way Radios.
- Computers.
- Battery Chargers.
- Rechargeable Battery Packs.
- Hard Disk Drives.
- PDA's.
- LCD Screens.
- SCSI Interface.
- Digital Cameras.
- Video Cameras.



Fast Acting Fuse

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Specification Table

Type	Current Rating (A)	Resistance 10% x I Rated, 25°C Ω (Maximum)	Voltage Drop@1 x I Rated, 25°C mV (Maximum)	Fusing Current (within 5 second), 25°C (A)	Pre-Arc I ² t @ 50A A ² -second	Rated Voltage (V)	Part Number
F0402E	0.25	0.650	220	0.625	0.00005*	32	F0402E0R25FSTR
	0.50	0.250	180	1.250	0.00030		F0402E0R50FSTR
	0.75	0.200		1.875	0.00300		F0402E0R75FSTR
	1.00	0.130	160	2.500	0.00800		F0402E1R00FSTR
	1.50	0.060	140	3.750	0.03000		F0402E1R50FSTR
	2.00	0.040	120	5.000	0.06000		F0402E2R00FSTR
F0603E	0.25	0.650	220	0.625	0.00005*	32	F0603E0R25FSTR
	0.50	0.250	180	1.250	0.00030		F0603E0R50FSTR
	0.75	0.200		1.875	0.00300		F0603E0R75FSTR
	1.00	0.130	160	2.500	0.00800		F0603E1R00FSTR
	1.25	0.090	140	3.125	0.01000		F0603E1R25FSTR
	1.50	0.060		3.750	0.03000		F0603E1R50FSTR
	2.00	0.040	120	5.000	0.06000		F0603E2R00FSTR
F0612D	4.00	0.040	260	10.000	0.10000	32	F0612D4R00FSTR
	5.00	0.025	200	12.500	0.25000		F0612D5R00FSTR
F0805B	0.25	0.750	280	0.500	0.00003*	63	F0805B0R25FSTR
	0.50	0.350		1.000	0.00020		F0805B0R50FSTR
	0.75	0.270		1.500	0.00100		F0805B0R75FSTR
	1.00	0.220		2.000	0.00300		F0805B1R00FSTR
	1.25	0.170	240	2.500	0.00700		F0805B1R25FSTR
	1.50	0.120		3.000	0.01000		F0805B1R50FSTR
	2.00	0.080	220	4.000	0.03000		F0805B2R00FSTR
	2.50	0.060		5.000	0.05000		F0805B2R50FSTR
	3.00	0.050		6.000	0.10000		F0805B3R00FSTR
F1206B	0.50	0.350	280	1.000	0.00020	63	F1206B0R50FSTR
	1.00	0.180	240	2.000	0.00300		F1206B1R00FSTR
	1.50	0.120		3.000	0.01000		F1206B1R50FSTR
	2.00	0.080	220	4.000	0.03000		F1206B2R00FSTR
	3.00	0.050		6.000	0.10000		F1206B3R00FSTR

*Current is limited to less than 50A at 32V due to internal fuse resistance.

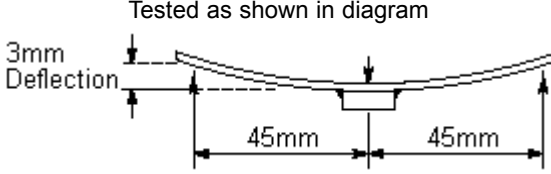


Fast Acting Fuse

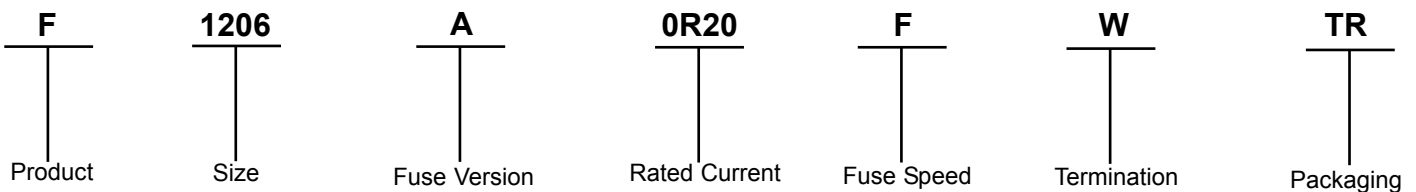
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Environmental Characteristics

Test	Conditions	Requirement
Solderability	Components completely immersed in a solder bath at 235 ±5°C for 2 seconds.	Terminations to be well tinned No visible damage
Leach Resistance	Completely immersed in a solder bath at 260 ±5°C for 60 seconds.	Dissolution of termination ≤ 25% of area $\Delta R/R < 10\%$
Storage	12 months minimum with components stored in "as received" packaging.	Good solderability
Shear	Components mounted to a substrate. A force of 5N applied normal to the line joining the terminations and in a line parallel to the substrate.	No visible damage
Rapid Change of Temperature	Components mounted to a substrate. 50 cycles -55°C to +125°C.	No visible damage $\Delta R/R < 10\%$
Vibration	Per Mil-Std-202F Method 201A and Method 204D Condition D.	No visible damage $\Delta R/R < 10\%$
Bend	Tested as shown in diagram 	No visible damage $\Delta R/R < 10\%$
Load Life F0805B, F1206B	25°C, Rated current, 20,000 hours.	No visible damage $\Delta R/R < 10\%$

Part Number Explanation



- Product** : Fuse.
- Size** : See table for standard sizes.
- Fuse Version** : A = Accu-Guard®, B = Accu-Guard® ||, C = Accu-Guard® || 0603, D = Accu-Guard® || 0612 and E = Accu-Guard® || 0402, 0603.
- Rated Current** : Current expressed in Amps, letter R denotes decimal point. Example: 0.20A = 0R20 and 1.75A = 1R75.
- Fuse Speed** : F = Fast.
- Termination** : S = Nickel/Lead-free solder coated (Sn 100).
- Packaging** : TR = Tape and reel.

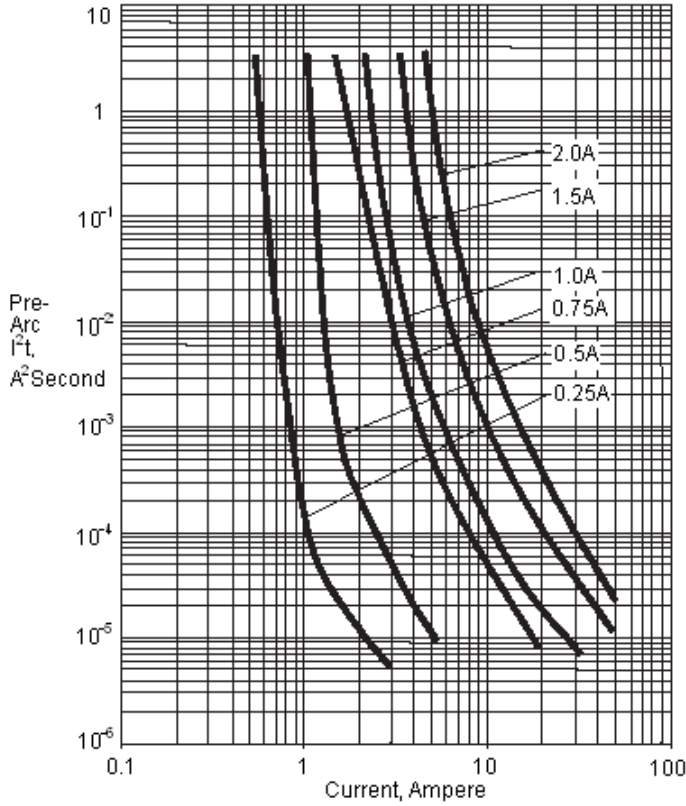


Fast Acting Fuse

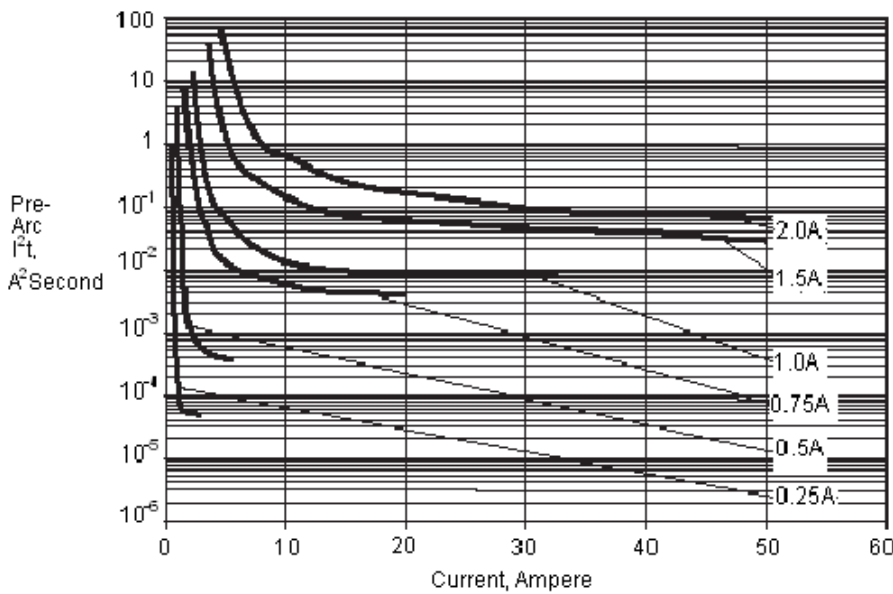
SMD Thin Film



Fuse Time - Current Characteristics For Type F0402E (Typical)



Fuse Pre-Arc Joule Integrals vs Current For Type F0402E (Typical)

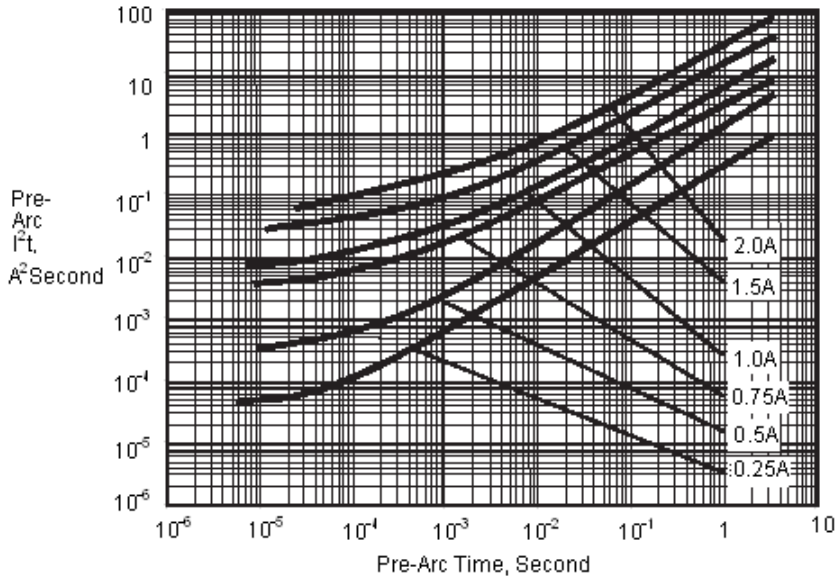


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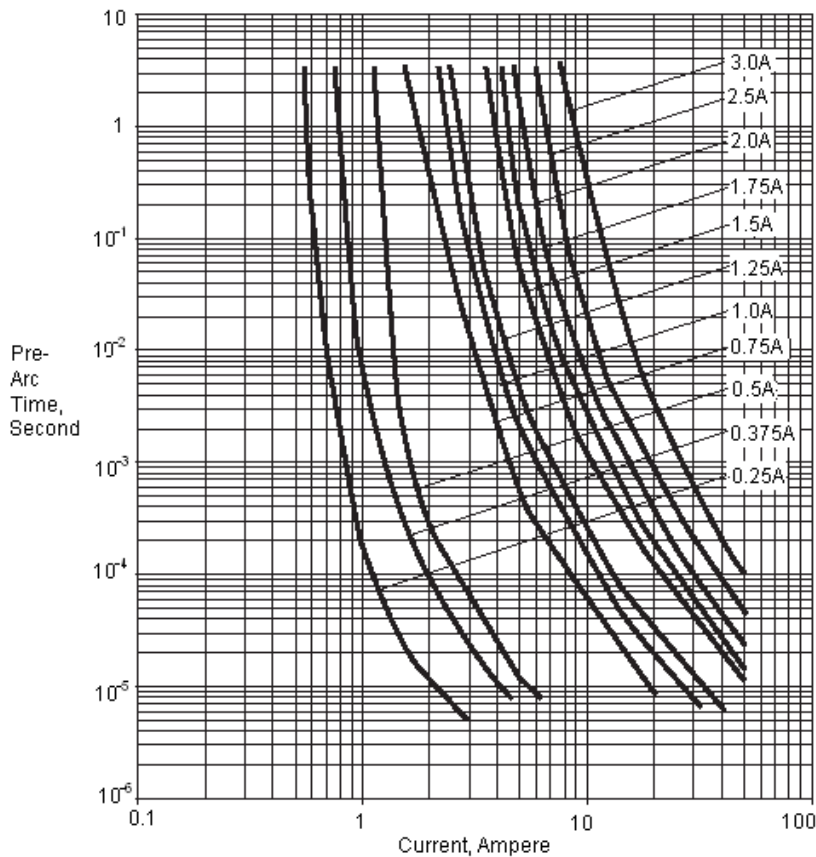
SMD Thin Film



Fuse Pre-Arc Joule Integrals vs Pre-Arc Time For Type F0402E (Typical)



Fuse Time - Current Characteristics For Type F0603E (Typical)

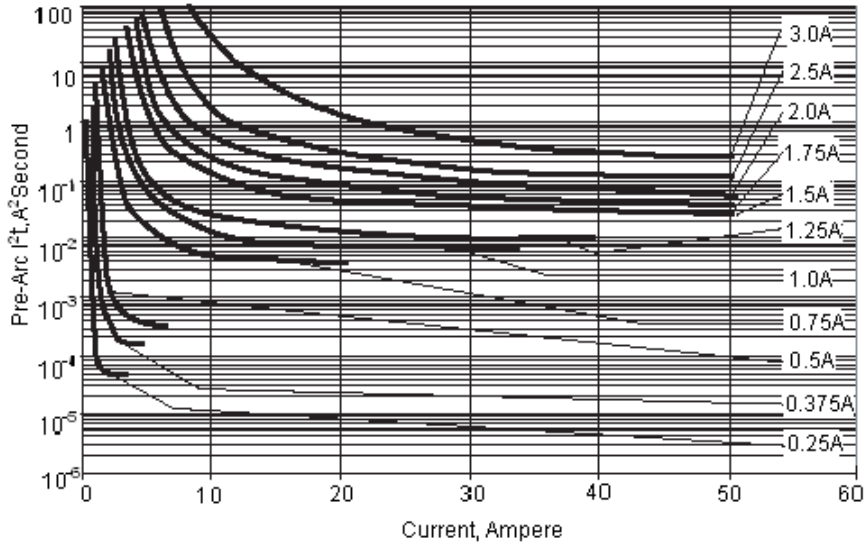


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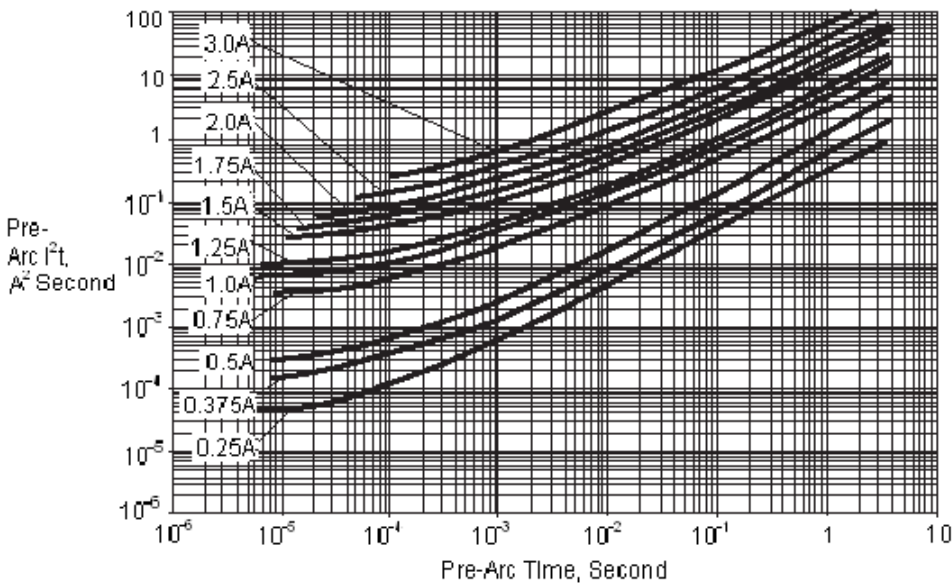
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Fuse Pre-Arc Joule Integrals vs Current For Type F0603E (Typical)



Fuse Pre-Arc Joule Integrals vs Pre-Arc Time For Type F0603E (Typical)

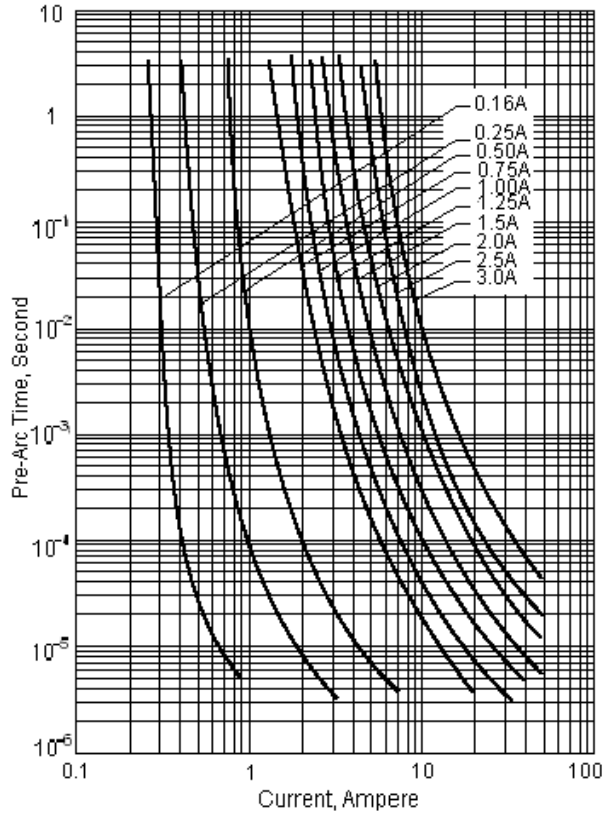


Fast Acting Fuse

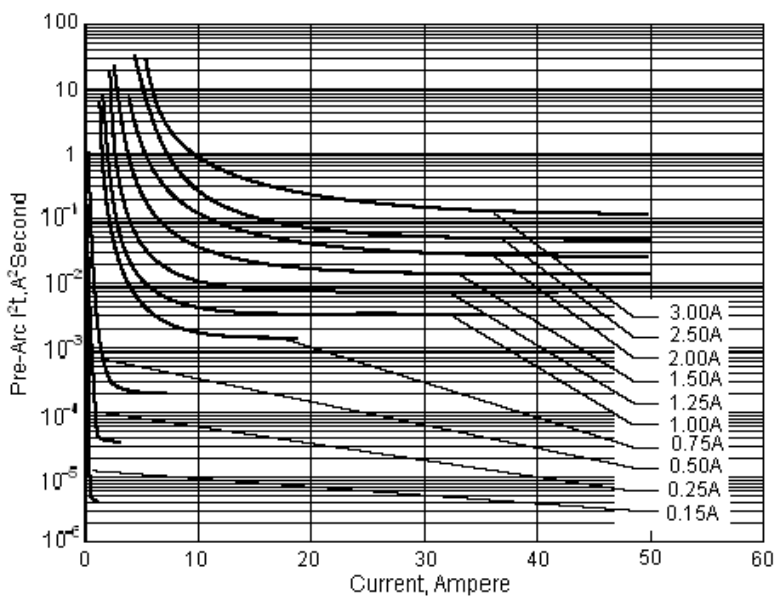
SMD Thin Film



Fuse Time - Current Characteristics For Types F0805B and F1206B (Typical)



Fuse Pre-Arc Joule Integrals vs Current Time For Types F0805B and F1206B (Typical)

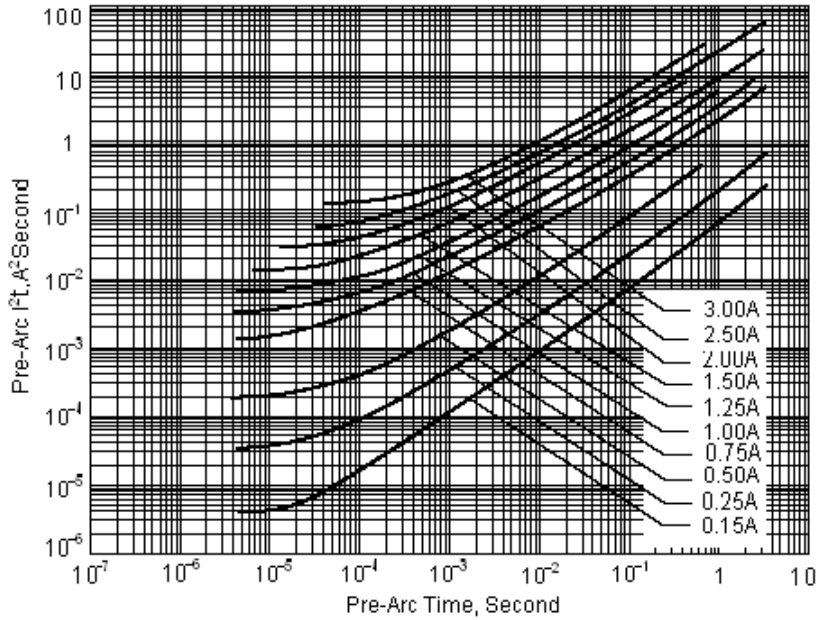


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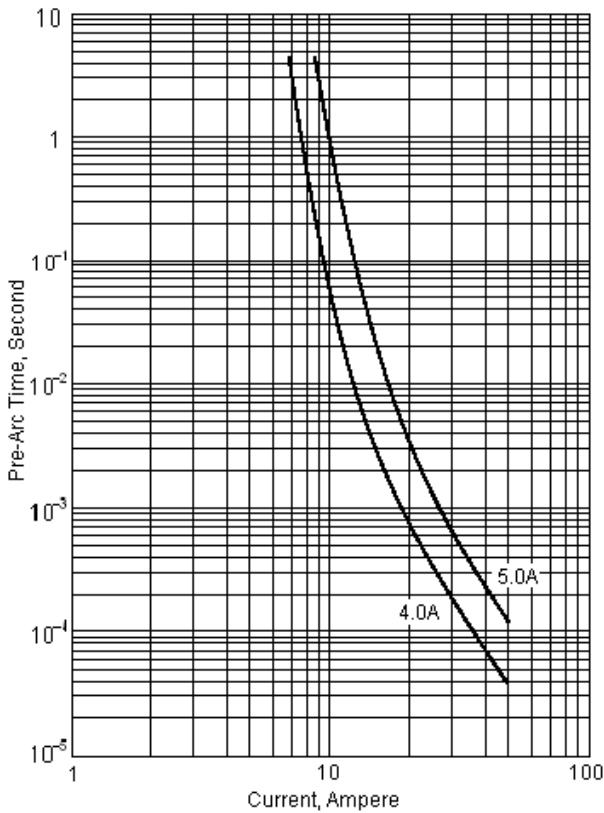
SMD Thin Film



Fuse Pre-Arc Joule Integrals vs Pre-Arc Time For Types F0805B and F1206B (Typical)



Fuse Time - Current Characteristics For Types F0612D (Typical)

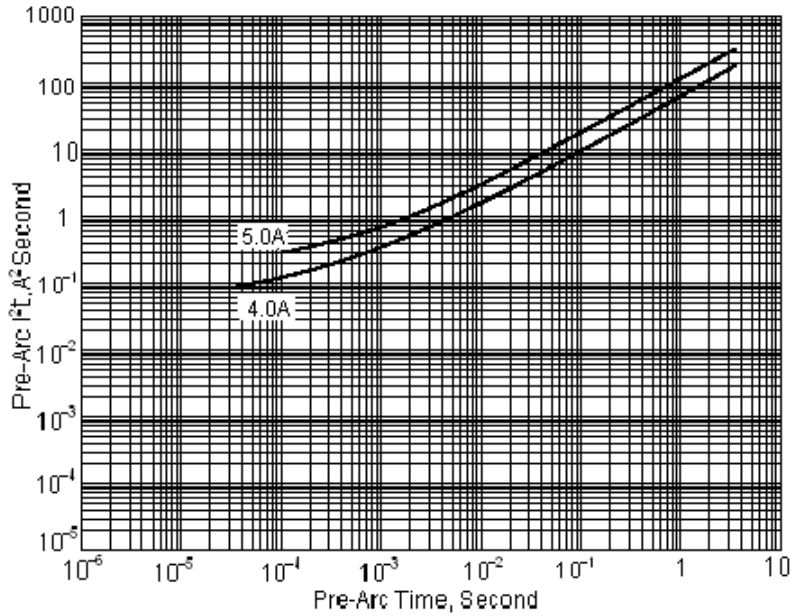


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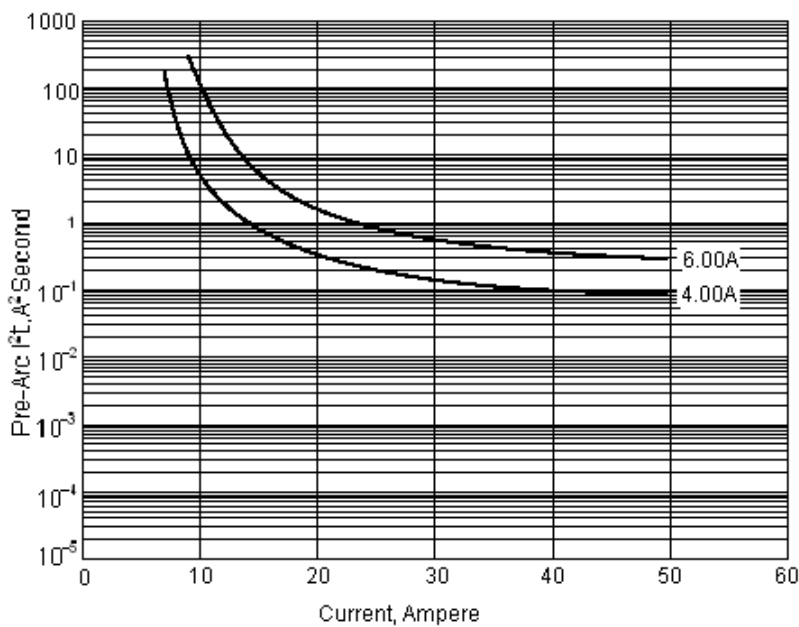
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Fuse Pre-Arc Joule Integrals vs Pre-Arc Time For Types F0612D (Typical)



Fuse Pre-Arc Joule Integrals vs Current For Types F0612D (Typical)



Fast Acting Fuse SMD Thin Film



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