Thin Film Surface Mount Fuses

FF Series, 0603 Size

Features:

- Very fast acting at 200% overload current levels
- Low DCR
- High inrush current withstanding capability
- Fiberglass enforced epoxy fuse body
- Copper termination with nickel and tin plating
- Halogen free, RoHS compliance and lead-free

Application Fields:

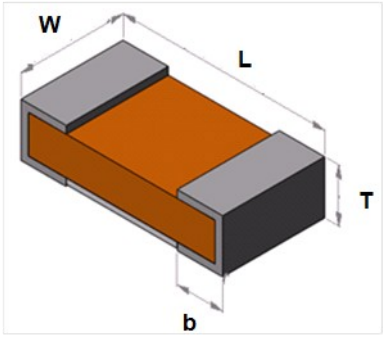
- Notebook computers and tablets
- Digital cameras
- Memory cards
- Toys
- Bluetooth earphones
- Portable electronic devices

Shape and Dimensions:

Unit	Inch	mm
Length (L)	0.063 ± 0.004	1.60 ± 0.10
Width (W)	0.032 ± 0.004	0.81 ± 0.10
Thickness (T)	0.012 ± 0.004	0.30 ± 0.10
Termination bandwidth (b)	0.014 ± 0.004	0.36 ± 0.10

Clearing Time Characteristics:

% of Current Rating	Opening Time at 25°C
100%	4 hours min.
200%	5 seconds max.
300%	0.2 second max.



Agency Approval:

Recognized Under the Components Program of UL.
File Number: E232989.

Product Identification:

T 0603 FF 1000 T M
(1) (2) (3) (4) (5) (6)

(1) Product code
(2) Size code: Standard EIA chip sizes
(3) Series code:
FF: FF series
(4) Current rating code:
0500: 0.5A
1000: 1.0A
(5) Package code:
T: Tape & Reel
(6) Marking code:
M: With mark (option)

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Typical Ratings and Characteristics:

Operating temperature: -55 to +90°C

Part Number	Current Rating (A)	Voltage Rating (VDC)	Interrupting Rating	Nominal Cold DCR (Ω)[1]	Nominal I^2t (A^2s)[2]
T0603FF0500T	0.50	65	50A@35V DC/AC 13A@65V DC	0.185	0.0150
T0603FF0750T	0.75	65		0.112	0.0250
T0603FF1000T	1.00	65		0.069	0.0300
T0603FF1250T	1.25	65	35A@35V DC/AC 13A@65V DC	0.048	0.0520
T0603FF1500T	1.50	65		0.037	0.0770
T0603FF1750T	1.75	35	35A@35V DC/AC 50A@24V DC/AC	0.031	0.1000
T0603FF2000T	2.00	35		0.0260	0.1200
T0603FF2500T	2.50	35		0.0210	0.1500
T0603FF3000T	3.00	35		0.0176	0.3500
T0603FF3500T	3.50	35		0.0148	0.4400
T0603FF4000T	4.00	35		0.0125	0.6000
T0603FF5000T	5.00	35		0.0095	1.0000

[1] Measured at ≤ 10% of rated current and 25˚C ambient
[2] Melting I^2t at 1000% of current rating

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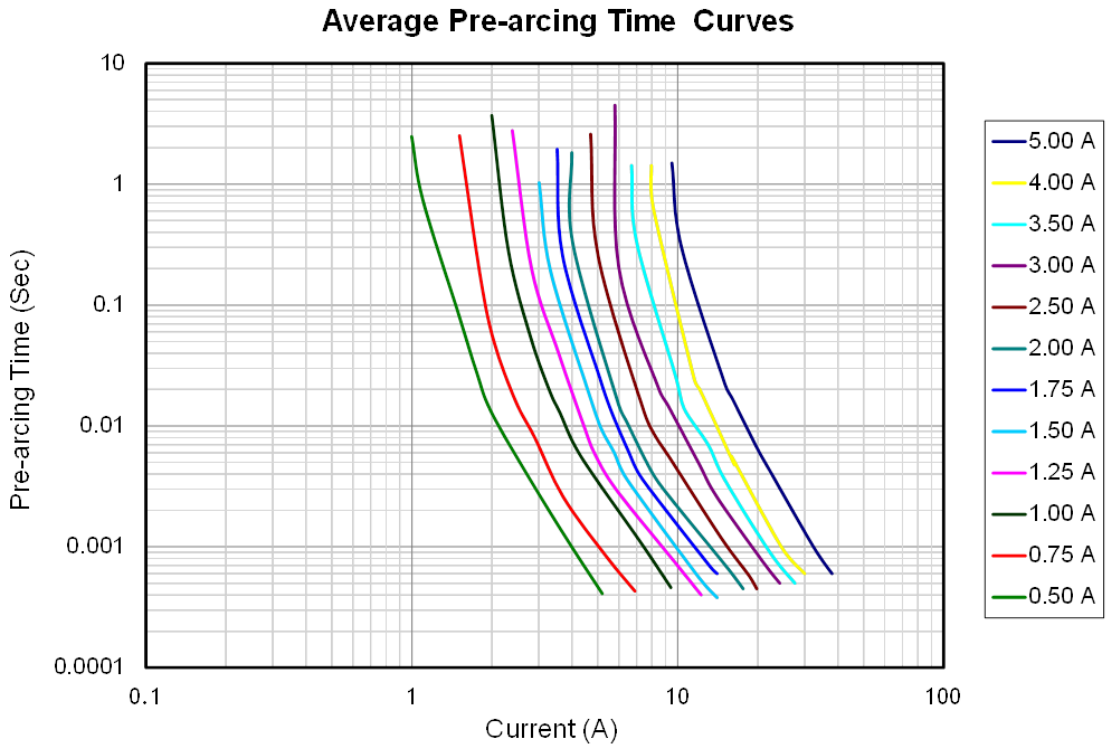
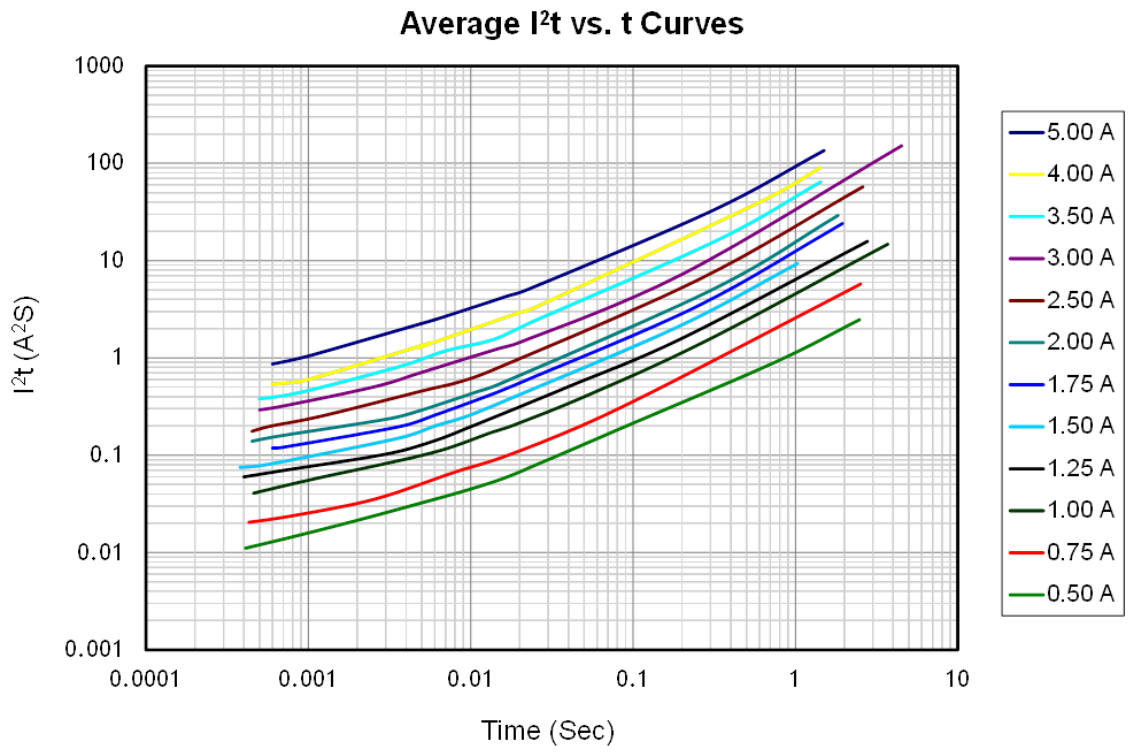
Average Pre-arcing Time Curves:



Average I^2t vs. t Curves:



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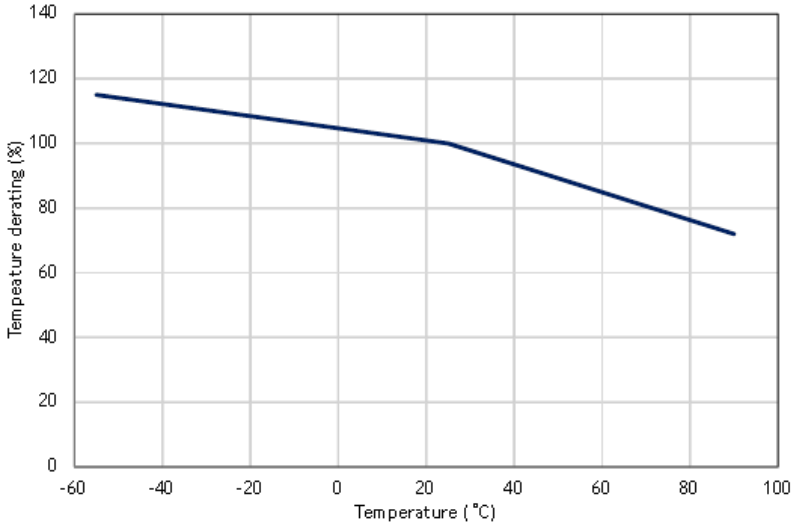
Temperature Effect on Current Rating:



Environmental Tests:

No.	Test item	Requirement	Test condition	Reference
1	Bending	≤1A: 10% DCR change max. >1A: 20% DCR change max.	2mm	Refer to AEM QIQ034
2	Solderability	95% coverage min.	One dip at 255°C for 5 seconds	MIL-STD-202 Method 208
3	Thermal shock	DCR change within ±10% No mechanical damage	100 cycles between -55°C and +125°C	MIL-STD-202 Method 107
4	Moisture resistance	DCR change within ±10% No excessive corrosion	10 cycles	MIL-STD-202 Method 106
5	Salt spray	DCR change within ≤ ±10% No excessive corrosion	5% salt solution, 48 hour exposure	MIL-STD-202 Method 101
6	Mechanical vibration	DCR change within ≤ ±10% No mechanical damage	0.4” D.A. or 30G between 5 and 3000 Hz	MIL-STD-202 Method 204
7	Mechanical shock	DCR change within ≤ ±10% No mechanical damage	1500G, 0.5 ms, half sine shocks	MIL-STD-202 Method 213
8	Life	Change of voltage drop within ±10%, no open circuit	75% rated current, 2000 hours, ambient temperature +20°C to 30°C	Refer to AEM QIQ106

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Packaging:

Chip Size	Parts on 7 inch (178mm) Reel
0603(1608)	8,000

Recommended Reflow Soldering Profile: