

Fast Acting | 0.063x0.032 inch Thick Film Chip Fuses

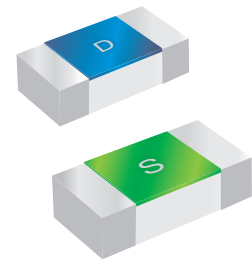
0603FA HF



0603FA Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

Features

- High inrush current withstanding capability
- Ceramic and glass construction
- Halogen free, lead free and RoHS compliant
- Excellent environmental integrity
- One time positive disconnect
- AEC-Q200 Automotive Grade Certified



Applications

- Flat panel displays and televisions
- Automotive infotainment and ECU
- Computer servers
- Portable electronics
- Mobile device chargers

Electrical Characteristics

Amp Rating	% of Amp Rating	Opening Time
0.25~5A	100%	4 Hours Min.
0.25~5A	250%	5 Seconds Max.

Specification

Part Number	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Typical Cold Resistance (Ohms)	Typical Melting I ² t (A ² Sec)	Typical Voltage Drop (V)	Marking Code
0603FA-R250HF	0.250	63	63V@50A	3.220	0.00045	0.889	D
0603FA-R375HF	0.375	63	63V@50A	1.302	0.00091	0.590	E
0603FA-R500HF	0.500	63	63V@50A	1.073	0.0012	0.579	F
0603FA-R750HF	0.750	63	63V@50A	0.473	0.0093	0.423	G
0603FA-1HF	1.00	63	63V@50A	0.251	0.0111	0.339	H
0603FA-1.5HF	1.50	63	63V@50A	0.151	0.0422	0.273	K
0603FA-2HF	2.00	63	63V@50A	0.071	0.1153	0.160	N
0603FA-2.5HF	2.50	63	63V@50A	0.053	0.1419	0.142	O
0603FA-3HF	3.00	63	63V@50A	0.034	0.2726	0.133	P
0603FA-3.5HF	3.50	63	63V@50A	0.023	0.5012	0.130	R
0603FA-4HF	4.00	63	63V@50A	0.021	0.5985	0.121	S
0603FA-5HF	5.00	63	63V@50A	0.015	1.8561	0.117	T

- DC Interrupting Rating - Measured at designated voltage, time constant < 50 microseconds.
- DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C.
- Typical Melting I²t measured at 10In Current.
- Typical Voltage Drop measured at rated current after temperature has stabilized.

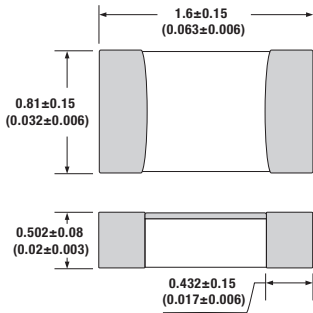
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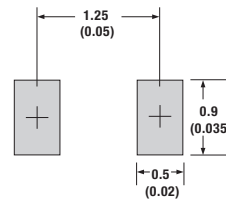
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Dimension

Unit: mm/inch



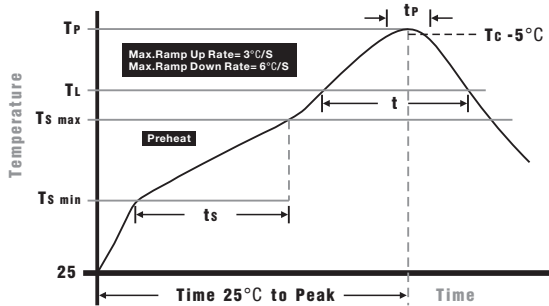
Pad layout



Packaging

- Quantity: 5,000pcs
- 8mm wide tape on 178mm(7 inch) diameter reel - specification EIA Standard 481.

Soldering Parameters

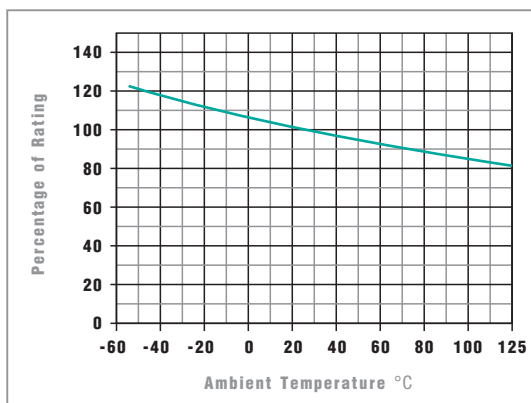


Wave Soldering: 260°C, 10 seconds max.
 Infrared Reflow: 260°C, 30 seconds max.

IR Reflow Profile

Preheat Heat	
Temperature min (T _{min})	150°C
Temperature max (T _{max})	200°C
Time (T _{min} to T _{max}) (ts)	60 - 120 seconds
Average ramp-up rate (T_{max} to T_p)	
	3°C/second max.
Liquidous temperature (T_L)	
Time at liquidous (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
Average ramp-down rate (T_p to T_{max})	
	6°C/second max.
Time 25 °C to peak temperature	
	8 minutes max.

Temperature Derating Curve



- Normal Operating Temperature: 23°C ± 2
- Operating Temperature: -55 to 125°C
- The fuse rating is determined by the equation below:

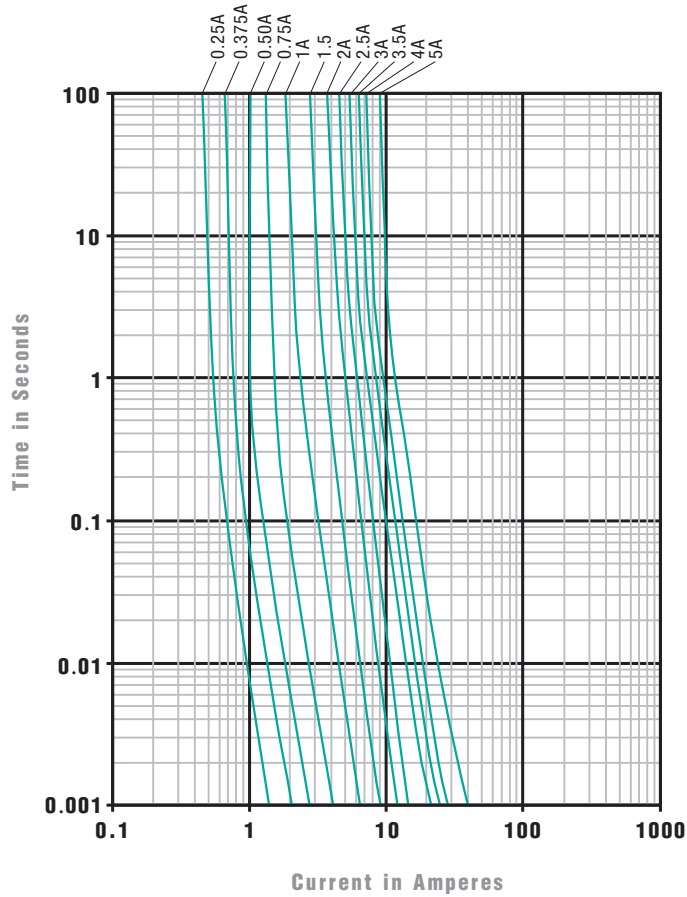
$$I_n = \frac{I_{input \ max.}}{0.70 \times K_{temp}}$$

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Average Time Current Curves



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