

Fast Acting | 0.126x0.064 inch Thick Film Chip Fuses

1206FA Series

1206FA 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.

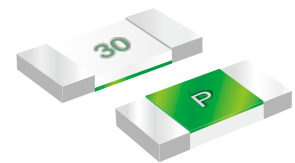


Features

- Compatible with reflow and wave solder
- 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
- Power Battery Packs



Electrical Characteristics

Amp Rating	% of Amp Rating	Opening Time
0.25~40A	100%	4 Hours Min.
0.25~5A	250%	5 Seconds Max.
6~40A	350%	5 Seconds Max.

Specification

Part Number	Ampere Rating (A)	Voltage Rating	Interrupting Rating	Typical Cold Resistance (Ohms)	Typical Melting I ² t (A ² Sec)	Typical Voltage Drop (V)	Marking Code
1206FA-R250	0.250			3.610	0.0004	1.402	.25
1206FA-R375	0.375			1.891	0.0008	0.716	E
1206FA-R500	0.500			1.026	0.0020	0.652	0.5
1206FA-R750	0.750			0.605	0.0056	0.620	.75
1206FA-1A	1.00	72Vdc @ 50A 32Vdc @ 150A 24Vdc @ 300A		0.484	0.105	0.511	H
1206FA-1.5A	1.50			0.249	0.151	0.365	K
1206FA-2A	2.00			0.131	0.427	0.313	N
1206FA-2.5A	2.50			0.077	0.675	0.240	O
1206FA-3A	3.00			0.048	1.396	0.185	P
1206FA-3.5A	3.50			0.039	1.683	0.181	R
1206FA-4A	4.00			0.035	1.745	0.175	S
1206FA-4.5A	4.50			0.031	2.666	0.168	X
1206FA-5A	5.00	32Vdc @ 150A 24Vdc @ 300A		0.026	2.923	0.142	T
1206FA-6A	6.00			0.016	11.20	0.140	F
1206FA-7A	7.00			0.012	12.62	0.141	7
1206FA-8A	8.00			0.008	14.00	0.099	M
1206FA-10A	10.0			0.0065	20.55	0.100	U
1206FA-12A	12.0	32Vdc @ 150A 24Vdc @ 300A		0.0048	12.00	0.086	12
1206FA-15A	15.0			0.0039	16.32	0.077	15
1206FA-20A	20.0			0.0018	48.02	0.061	20
1206FA-25A	25.0			0.0016	33.03	0.058	25
1206FA-30A	30.0			0.0012	44.10	0.070	30
1206FA-40A	40.0	32Vdc @ 200A		0.0086	160.3	0.097	XL

- 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.

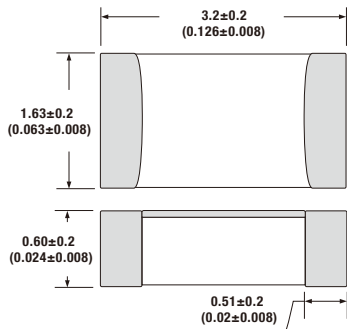
Fast Acting | 0.126x0.064 inch

Thick Film Chip Fuses

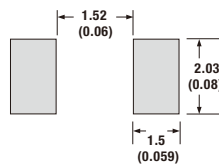
1206FA Series

Dimension

Unit: mm/inch



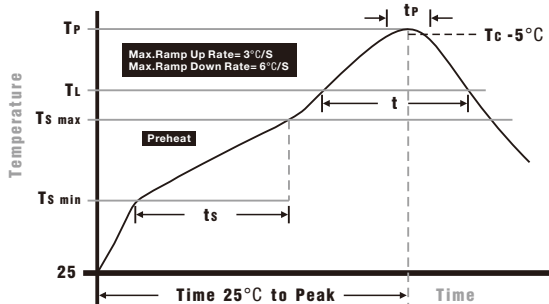
Pad layout



Packaging

- Quantity: 3,000pcs
- 8mm wide tape on 178mm(7 inch) diameter reel -specification EIA Standard 481.

Soldering Parameters

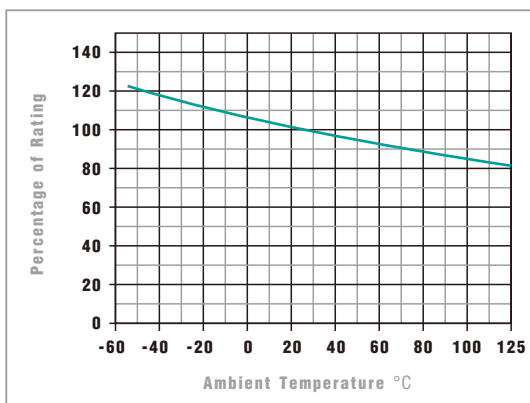


Wave Soldering: 260°C, 10 seconds max.
Infrared Reflow: 260°C, 30 seconds max.

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 (tp)	
	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:

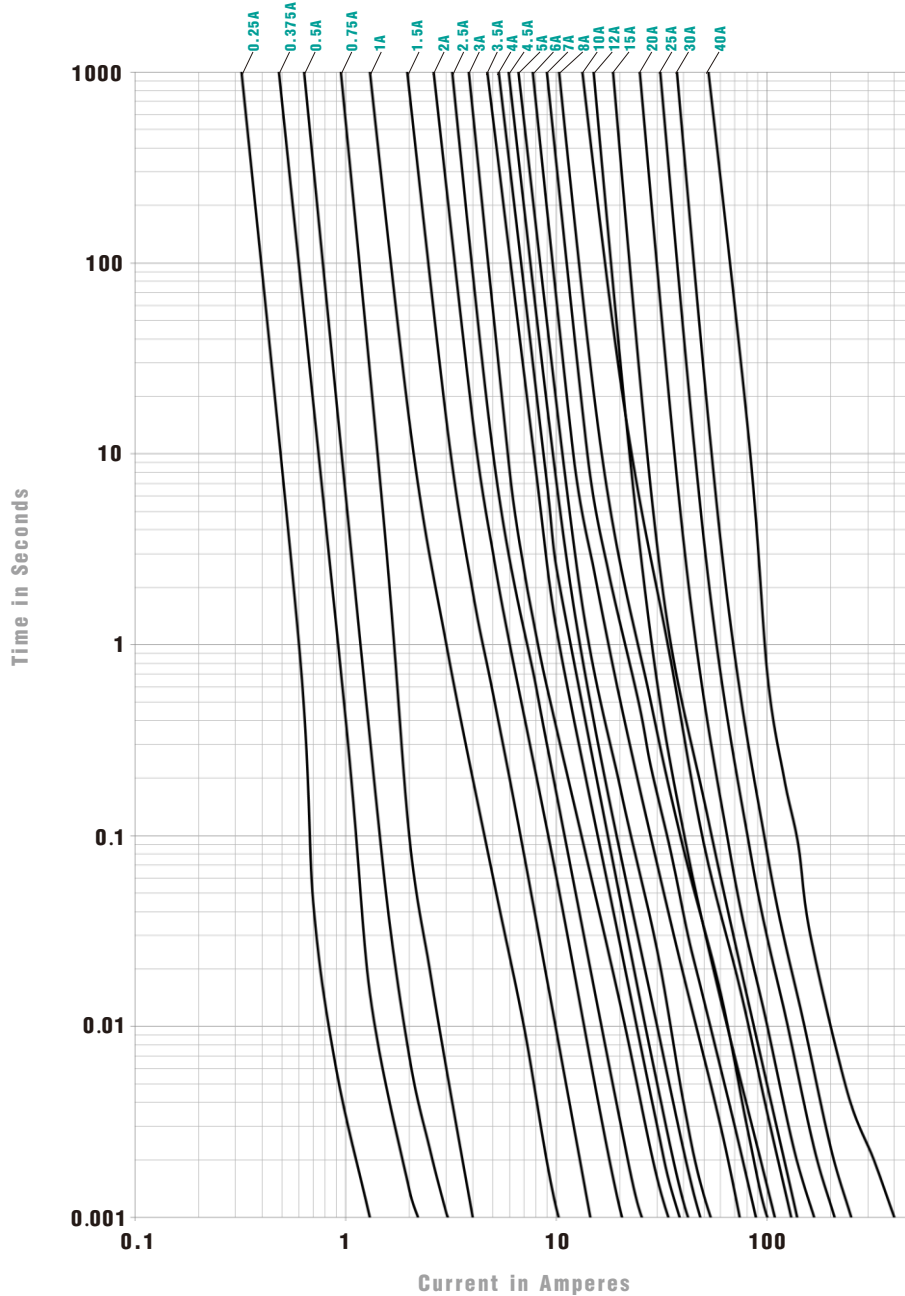
$$I_n = \frac{I_{\text{input max.}}}{0.70 \times K_{\text{temp}}}$$

Fast Acting | 0.126x0.064 inch

Thick Film Chip Fuses

1206FA Series

Average Time Current Curves



© 2018 PROSEMI Inc. All Rights Reserved. Specifications and features are subject to change without notice. www.prosemitech.com

The PROSEMI logo, and all other PROSEMI trademarks are the property of PROSEMI Inc. All other trademarks are the property of their respective owners.