PROSEMI
Circuit Protection

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

1206FA Series

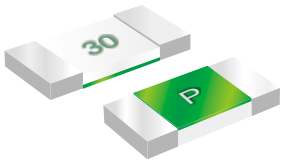
1206FA Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

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

Appications

- 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^2t (A^2Sec)	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	0.484	0.105	0.511	H
1206FA-1.5A	1.50	32Vdc @ 150A	0.249	0.151	0.365	K
1206FA-2A	2.00	24Vdc @ 300A	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	0.026	2.923	0.142	T
1206FA-6A	6.00	24Vdc @ 300A	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	0.0048	12.00	0.086	12
1206FA-15A	15.0	24Vdc @ 300A	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 I^2t measured at 10In Current.
- Typical Voltage Drop measured at rated current after temperature has stabilized.

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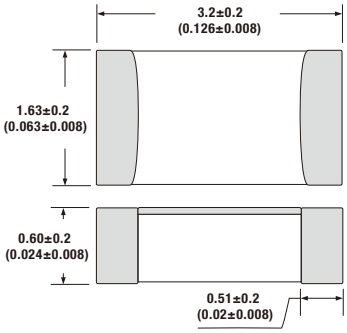
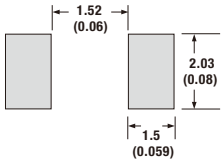
Dimension

Unit: mm/inch



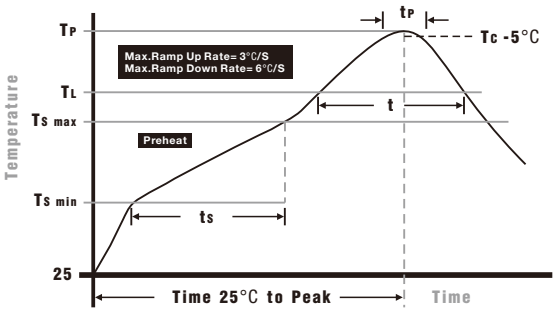
Pad layout



Packaging

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

Soldering Parameters

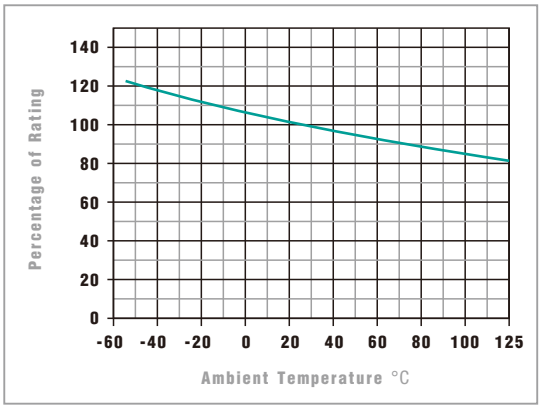


Wave Soldering: 260°C, 10 seconds max.
Infrared Reflow: 260°C, 30 seconds max.

IR Reflow Profile

Preheat Heat **Temperature min (Tsmin)** **Temperature max(Tsmax)** **Time (Tsmin to Tsmax) (ts)**	 150°C 200°C 60 -120 seconds
Average ramp-up rate (Tsmax to Tp)	3°C/second max.
Liquidous temperature (T_L) **Time at liquidous (t_L)**	217°C 60 - 150 seconds
Peak temperature(Tp)	260+0/-5°C
Time within 5°C of actual peak Temperature (tp)	10 – 30 seconds
Average ramp-down rate (Tp to Tsmax)	6°C/second max.
Time 25 °C to peak temperature	8 minutes max.

Temperature Derating Curve



- Normal Operating Temperature: 23°C± 2
- Operating T emperature: -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