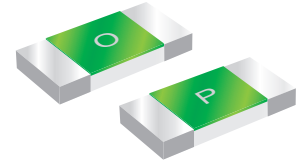


# Time Delay | 0.126x0.064 inch Thick Film Chip Fuses

## 1206TD Series

1206TD 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
- AEC-Q200 Automotive Grade Certified
- Compatible with reflow and wave solder
- Ceramic and glass construction Excellent environmental integrity
- One time positive disconnect
- Lead Free and Halogen free material

### 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
0.63~30A	100%	4 Hours Min.
0.63~3A	200%	1sec~60sec
0.63~5A	250%	5 Seconds Max.
0.63~5A	300%	0.1sec~3sec
6~30A	350%	5 Seconds Max.
0.63~30A	1000%	0.2ms~20ms

### Specification

Part Number	Ampere Rating (A)	Voltage Rating	Interrupting Rating	Typical Cold Resistance (Ohms)	Typical Melting I <sup>2</sup> t (A <sup>2</sup> Sec)	Typical Voltage Drop (V)	Marking Code
1206TD-R630	0.63	72Vdc @ 50A 63Vdc @ 50A		1.08	0.009	0.950	B
1206TD-R750	0.75			0.85	0.01	0.900	0.75
1206TD-1A	1.00			0.48	0.11	0.510	H
1206TD-1.25A	1.25			0.33	0.15	0.500	H
1206TD-1.5A	1.50			0.23	0.17	0.465	K
1206TD-1.75A	1.75			0.18	0.20	0.450	E
1206TD-2A	2.00			0.135	0.41	0.316	N
1206TD-2.5A	2.50			0.075	0.68	0.240	O
1206TD-3A	3.00			0.047	1.5	0.187	P
1206TD-3.5A	3.50			0.038	2.0	0.180	R
1206TD-4A	4.00			0.034	2.5	0.173	S
1206TD-4.5A	4.50			0.029	2.65	0.164	X
1206TD-5A	5.00			0.024	4	0.145	T
1206TD-6A	6.00			0.016	12	0.140	F
1206TD-7A	7.00	0.0123	14	0.130	7		
1206TD-8A	8.00	0.0083	16	0.123	M		
1206TD-10A	10.0	0.0065	22	0.110	U		
1206TD-12A	12.0	32Vdc @ 150A 24Vdc @ 300A		0.0050	11.5	0.085	12
1206TD-15A	15.0			0.0037	16.5	0.078	15
1206TD-20A	20.0			0.0034	50	0.080	Q
1206TD-25A	25.0			0.0016	60	0.090	L
1206TD-30A	30.0			0.0013	100	0.090	Z

◦ DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)  
 ◦ DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25 C  
 ◦ Typical Pre-arcing I<sup>2</sup>t are measured at 10In Current  
 Choice fuse for surge application (USB charger etc.), make sure the I<sup>2</sup>t of fuse is 4 times than surge.  
 ◦ 1206TD-12A&15A are higher I<sup>2</sup>t version than 1206TD-12&15.  
 Specifications are subject to change without notice. Application testing is strongly recommended.

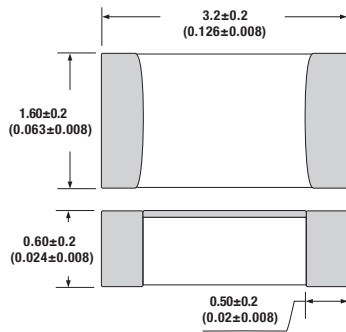
# Time Delay | 0.126x0.064 inch

## Thick Film Chip Fuses

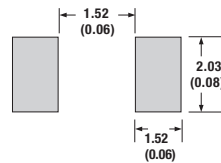
## 1206TD Series

### Dimension

Unit: mm/inch



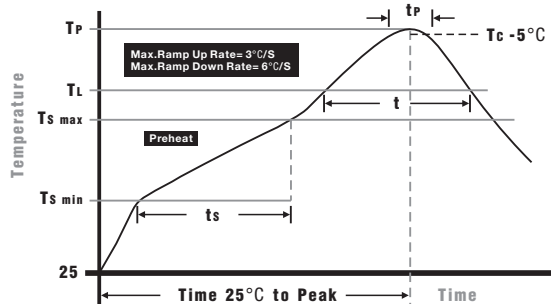
### Pad layout



### Packaging

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

### Soldering Parameters

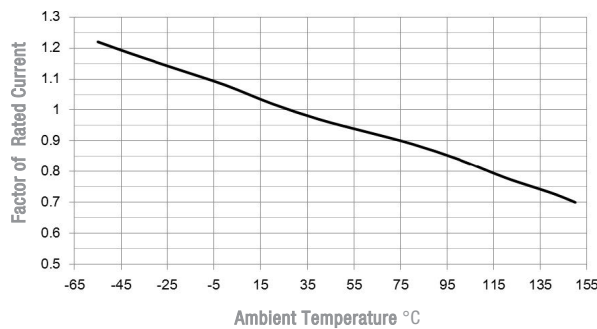


Wave Soldering: 260°C, 10 seconds max.  
Infrared Reflow: 260°C, 30 seconds max.

### IR Reflow Profile

Preheat Heat	
Temperature min ( $T_{smin}$ )	150°C
Temperature max ( $T_{smax}$ )	200°C
Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60 -120 seconds
Average ramp-up rate ( $T_{smax}$ to $T_p$ )	3°C/second max.
Liquidous temperature ( $T_l$ )	217°C
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 $T_{smax}$ )	6°C/second max.
Time 25 °C to peak temperature	8 minutes max.

### Temperature Derating Curve



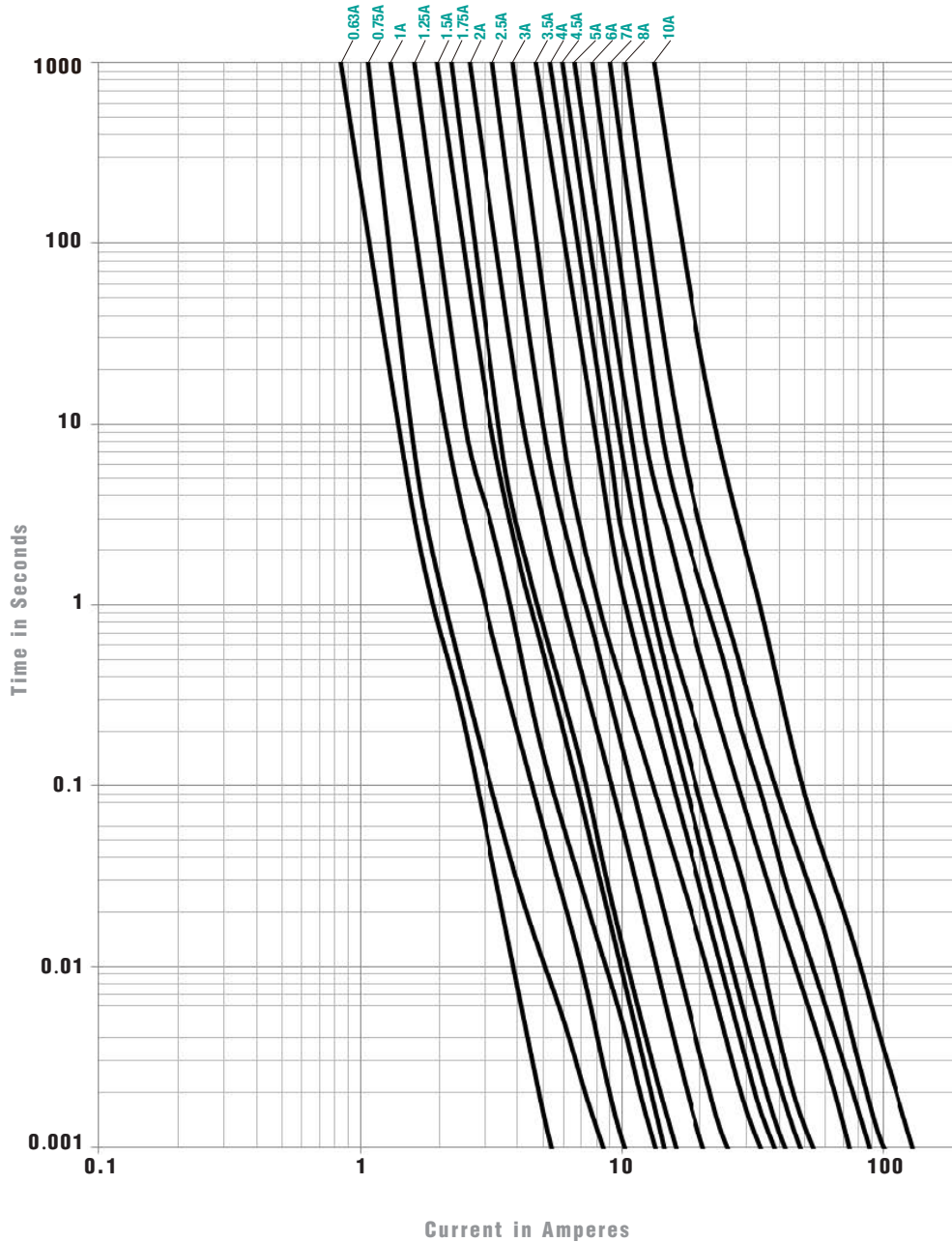
- Normal ambient temperature: 23+/-3°C
- Operating temperature: -55 ~ 150 C , with proper correction factor applied

Time Delay | 0.126x0.064 inch

Thick Film Chip Fuses

1206TD Series

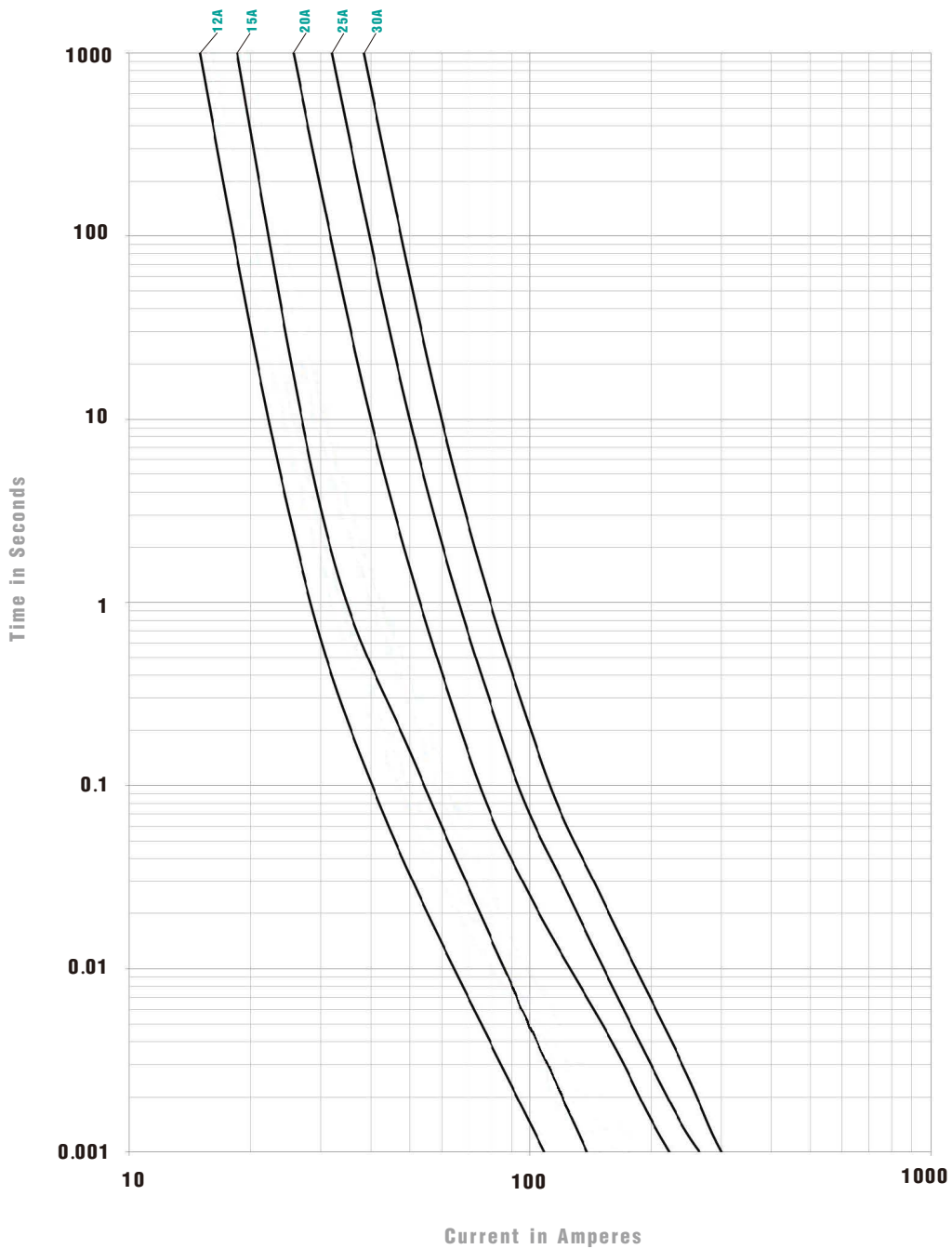
Average Time Current Curves



Fast Acting | 0.126x0.064 inch

**Thick Film Chip Fuses** **1206FA Series**

Average Time Current Curves



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