

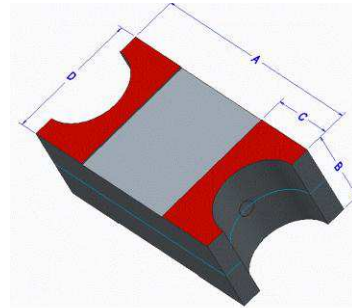
Surface Mount Fuse Very Fast Acting

PRODUCT: 1206SFV Family (Marked)

DOCUMENT: SCD28861
REV LETTER: A
REV DATE: DECEMBER 18, 2014
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Specification Status: Released

Termination Material: Copper, Tin, Nickel
Fuse Element: Copper/Copper alloy
Body Material: Fiberglass/Epoxy
Operating Temperature:
-55°C to +125°C (With de-rating)



Clear Time Characteristics

% of current rating	Clear time at 25°C	
	Min.	Max.
100%	4 hours	
250%		5 sec

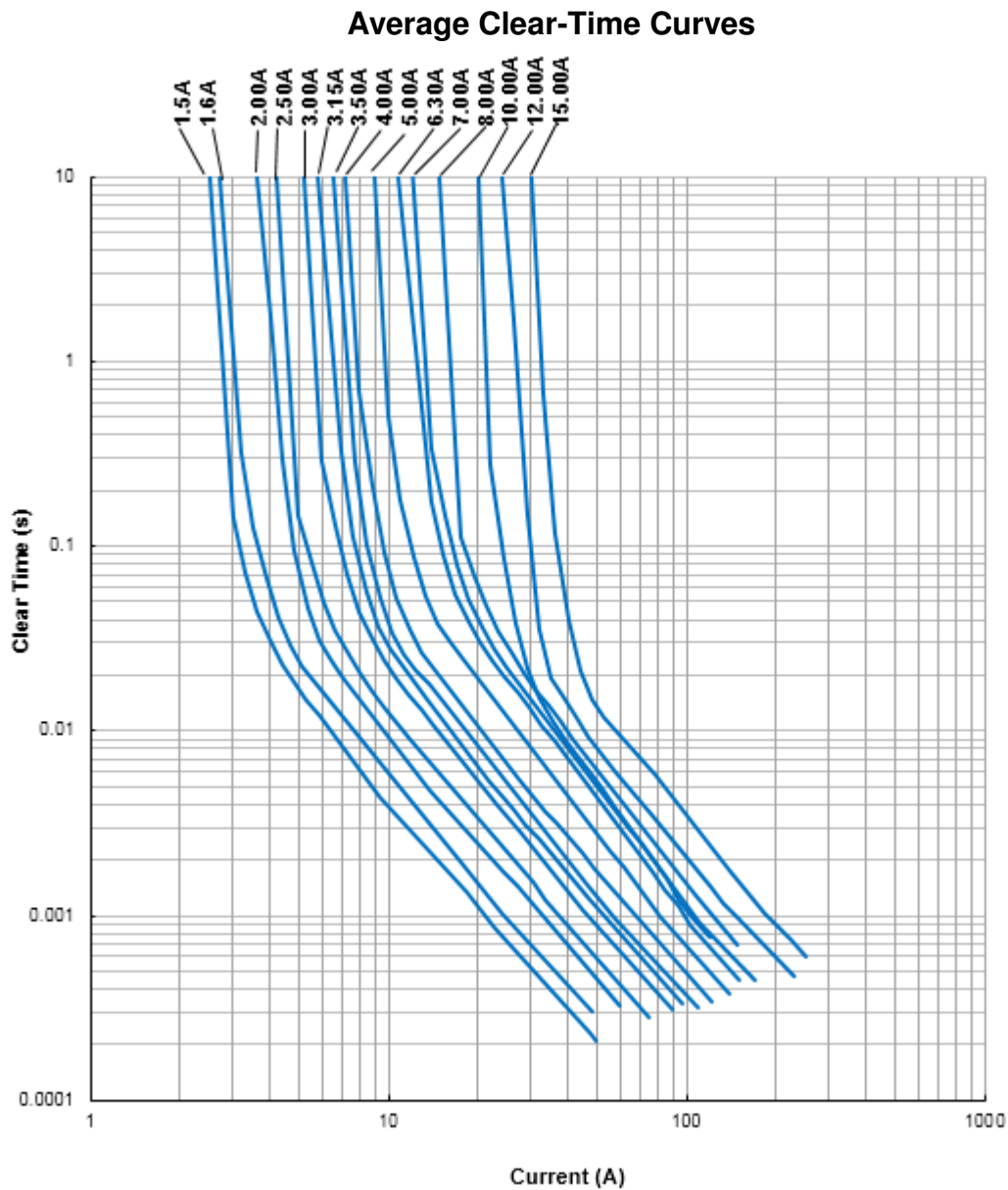
Dimensions

	A		B		C		D	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm	3.00	3.40	0.93	1.23	0.55	1.15	1.5	1.9
in	0.118	0.134	0.036	0.048	0.021	0.045	0.059	0.075

Part Number	Marking Code	Rated Current (A)	Interrupt Rating	Voltage Rating (VDC)	Nominal Cold DC Resistance (DCR) (Ω) ¹	Nominal I ² t (A ² s)
1206SFV1.50FM/065-2	G	1.50	50A@ 65VDC	65	0.050	0.37
1206SFV1.60FM/065-2	T	1.60		65	0.043	0.52
1206SFV2.00FM/065-2	I	2.00		65	0.032	0.88
1206SFV2.50FM/065-2	J	2.50		65	0.028	1.1
1206SFV3.00FM/065-2	K	3.00		65	0.022	1.9
1206SFV3.15FM/065-2	V	3.15		65	0.020	2.2
1206SFV3.50FM/065-2	L	3.50		65	0.018	2.6
1206SFV4.00FM/065-2	M	4.00		65	0.016	3.3
1206SFV5.00FM/032-2	N	5.00	50A@ 32VDC	32	0.013	5.4
1206SFV6.30FM/032-2	O	6.30		32	0.010	8.9
1206SFV7.00FM/032-2	P	7.00		32	0.0092	10.4
1206SFV8.00FM/032-2	R	8.00		32	0.0084	13.5
1206SFV10.0FM/032-2	Q	10.00		32	0.0050	11.2
1206SFV12.0FM/032-2	X	12.00		32	0.0041	15.0
1206SFV15.0FM/032-2	Y	15.00		32	0.0035	24.5

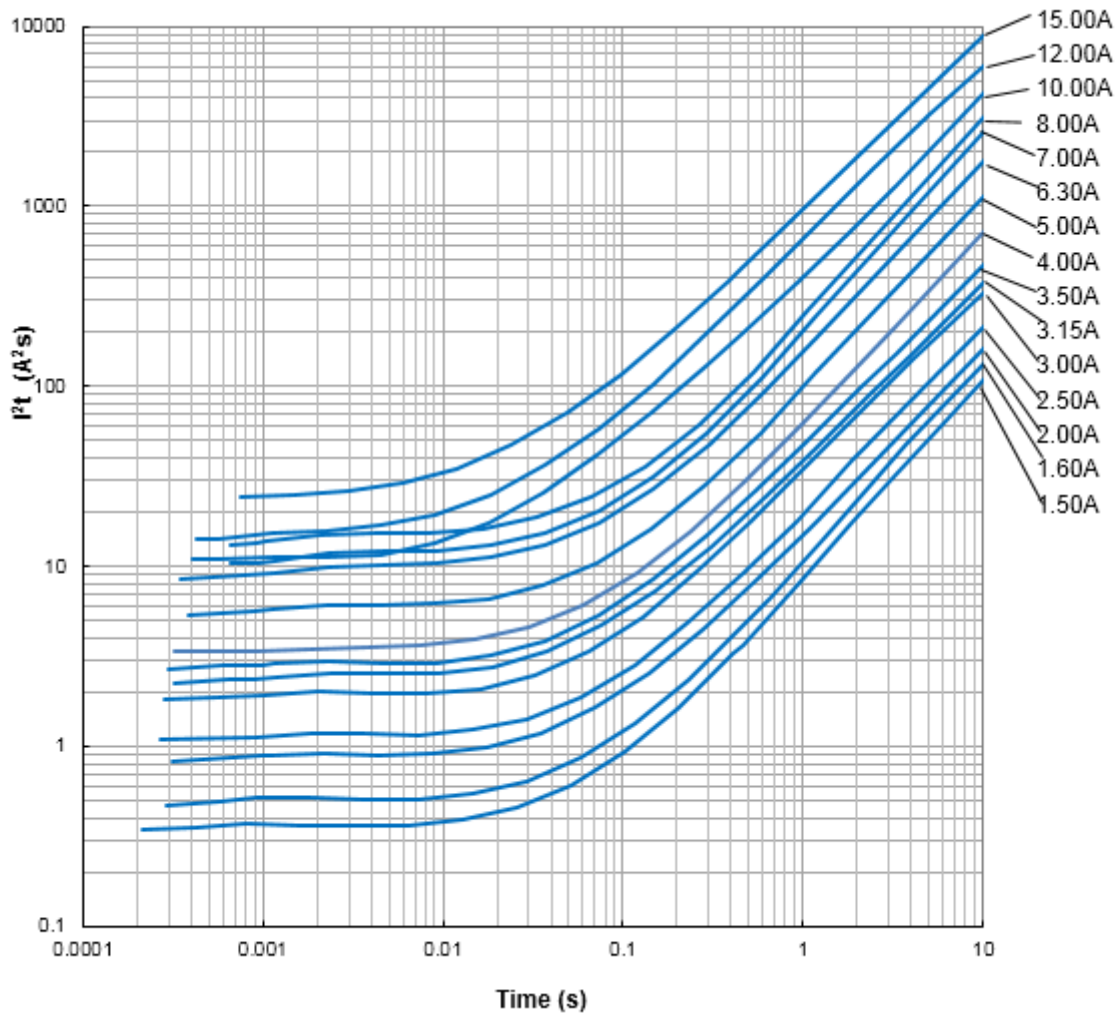
¹ Measured at $\leq 10\%$ of rated current and 25°C ambient

Average Clear-Time Curves for 1206SFV Devices



I²t Curves for 1206SFV Devices

Average I²t vs. t Curves



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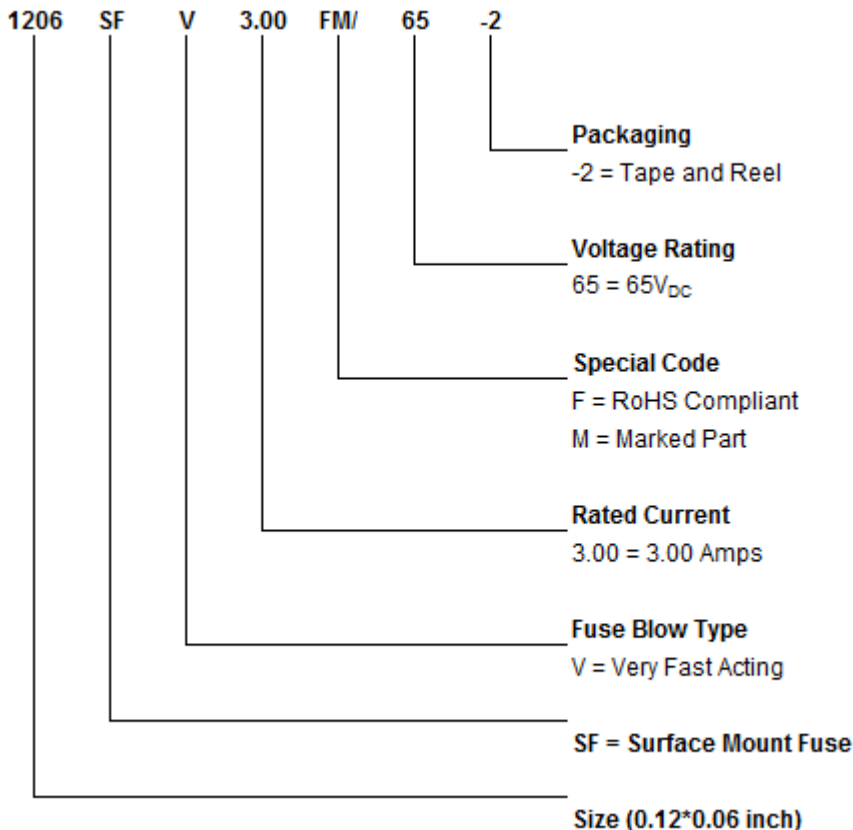
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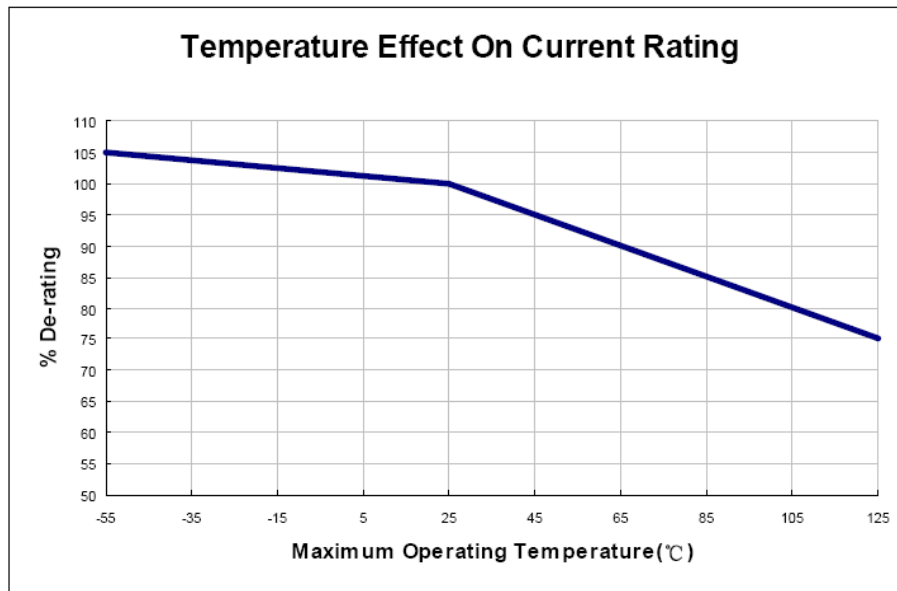
Product Characteristics for 1206SFV Devices

Reliability Test	Test Condition and Requirement
Reflow & Bend	3 reflows at 245°C followed by a 2 mm bend, 20% DCR change max. no mechanical damage
Solderability	245°C, 5 seconds, new solder coverage ≥90%
Soldering Heat Resistance	260°C, 10 seconds, 20% DCR change max., new solder coverage ≥75%
Life	25° C, 2000 hours, 80% rated current , voltage drop change ≤ ±20%
Thermal Shock	-65°C to +125°C, 100 cycles, 10% DCR change max, no mechanical damage
Mechanical Vibration	5 – 3000 Hz, 0.4 inch double amplitude or 30 G peak, 10% DCR change max, no mechanical damage
Mechanical Shock	1500 G, 0.5 milliseconds, half-sine shocks, 10% DCR change max, no mechanical damage
Salt Spray	5% salt solution, 48 hour exposure, 10% DCR change max, no excessive corrosion
Moisture Resistance	10 cycles, 15% DCR change max, no excessive corrosion

Part Naming for 1206SFV Devices



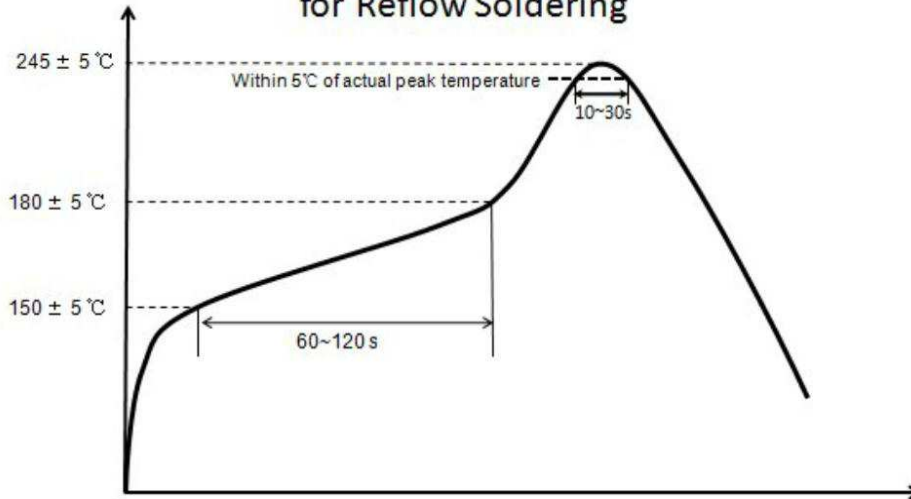
Temperature De-rating Curve for 1206SFV Devices



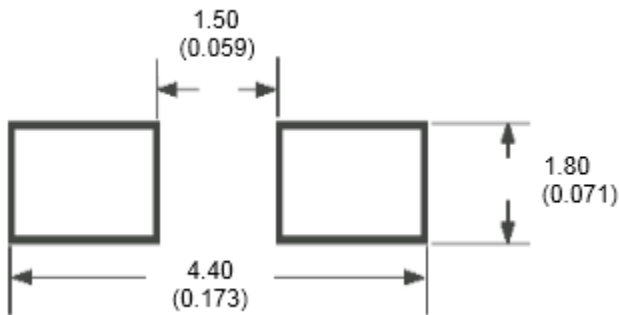
Solder Reflow Recommendation for 1206SFV Devices

Classification Reflow Profile	
Profile Feature	
Average ramp up rate (T_{SMAX} to T_p)	3°C/second max.
Preheat	
• Temperature min. (T _{SMIX})	150°C
• Temperature max. (T _{SMAX})	180°C
• Time (t _{SMIN} to t _{SMAX})	60 - 120 Seconds
Peak/Classification temperature (T_p)	245°C Max.
Time within 5°C of actual peak temperature	
Time (t _p)	10-30 Seconds
Ramp down rate	Natural Cooling

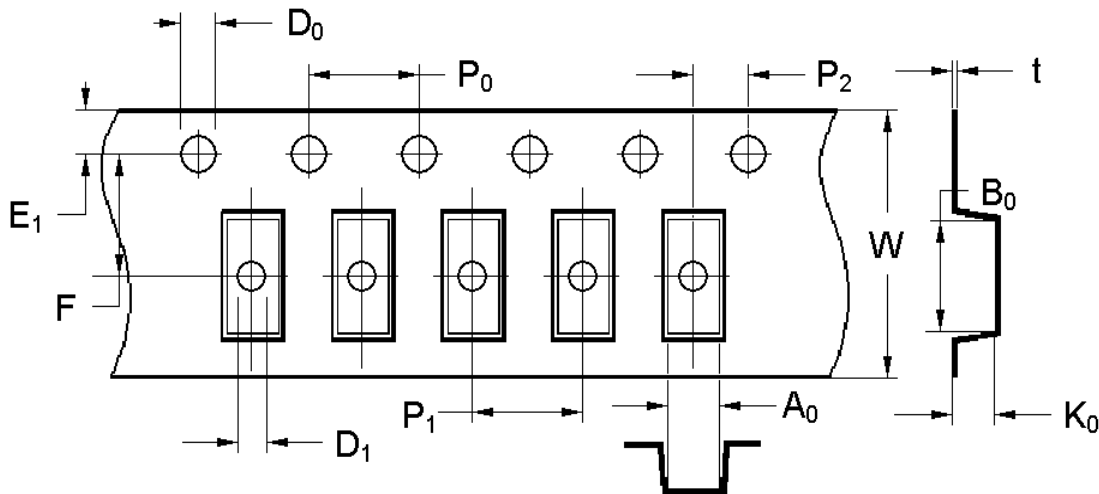
Recommended Temperature Profile for Reflow Soldering



Recommended Pad Layout for 1206SFV Devices mm (inch)



Package Information for 1206SFV Devices



	E1	F	W	P1	P0	P2
mm (in)	1.75±0.10 (0.069±0.004)	3.50±0.05 (0.138±0.002)	8.10±0.20 (0.319±0.008)	4.00±0.10 (0.157±0.004)	4.00±0.10 (0.157±0.004)	2.00±0.05 (0.079±0.002)
	D0	D1	t	A0	B0	K0
mm (in)	1.50+0.10/-0.00 (0.059+0.004)	1.00±0.05 (0.039±0.002)	0.22±0.05 (0.009±0.002)	2.05±0.10 (0.081±0.004)	3.50±0.10 (0.138±0.004)	1.30±0.10 (0.051±0.004)

Agency Recognition:
Precedence:
Effectivity:

UL E232989
This specification takes precedence over documents referenced herein.
Reference documents shall be the issue in effect on the date of invitation for bid.

Materials Information

ROHS Compliant

Directive 2002/95/EC
Compliant

ELV Compliant

Directive 2000/53/EC
Compliant

Pb-Free

