

Time-Lag Surface Mount Fuse

SST 300V Time-Delay Series

Descriptions

SST 300V Time-Delay Series provide board level primary and secondary circuit protection in a wide variety of applications. With excellent inrush current withstanding capability, excellent reliability for thermal and mechanic shock, also have a high reliability and stable solder ability, end caps are available in gold/silver/nickel plated.



Features

- ◆ Time-Lag (Slow-Blow).
- ◆ Small size (6.1mm*2.5mm).
- ◆ Wide range of current rating available.
- ◆ Wide operating temperature range.
- ◆ Low temperature de-rating.
- ◆ RoHS compliant.
- ◆ Tape and Reel for automatic placement.
- ◆ Conflict free metals.

Applications

- ◆ LED lighting
- ◆ Notebook PC
- ◆ Battery devices
- ◆ LCD/PDP devices
- ◆ LCD backlight inverter
- ◆ Portable Devices
- ◆ Power supply
- ◆ Networking devices
- ◆ PC server
- ◆ Cooling fan system
- ◆ Storage system
- ◆ Telecom system
- ◆ Wireless base station
- ◆ White goods
- ◆ Game console
- ◆ Office equipment
- ◆ Digital camera
- ◆ Industrial equipment
- ◆ Medical equipment

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Electrical Characteristics

Part Number	Ampere Rating (A)	Voltage Rating Vac(V)	Breaking Capacity	Nominal Cold Resistance (Ohms)	I ² T Melting Integral(A ² .S)
SST0250	0.25	300	50A@300V _{AC}	0.860	0.145
SST0300	0.30	300		0.620	0.162
SST0315	0.315	300		0.550	0.189
SST0375	0.375	300		0.470	0.200
SST0400	0.40	300		0.380	0.238
SST0500	0.50	300		0.320	0.275
SST0600	0.60	300		0.285	0.470
SST0630	0.63	300		0.256	0.566
SST0700	0.70	300		0.208	0.805
SST0750	0.75	300		0.175	1.240
SST0800	0.80	300	50A@250V _{AC}	0.155	1.880
SST1100	1.00	300		0.148	3.500
SST1125	1.25	300		0.102	4.760
SST1150	1.50	300		0.085	6.305
SST1200	2.00	300	200A@125V _{AC}	0.044	8.950
SST1250	2.50	300		0.043	16.025
SST1300	3.00	300		0.033	21.560
SST1315	3.15	300		0.029	22.750
SST1350	3.50	300		0.027	27.050
SST1400	4.00	300		0.025	31.808
SST1500	5.00	300		0.019	40.250
SST1600	6.00	300		0.018	67.245
SST1630	6.30	300		0.017	73.550
SST1700	7.00	300		0.015	76.280

- ◆ Cold resistance and I²t value are pending due to fuse elements shall be customized;
- ◆ DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C;
- ◆ Typical Pre-arching I²t are calculated at 10*In Current or 8ms;
- ◆ Min Interrupting Rating: 1.35*In.

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Material Details

Part Name	Material
End caps	Gold/Silver Plated Brass Cap
Body	Non-Transparent Square Ceramic Tube
Fuse element	Cu-Ag Alloy wire

Product Characteristics

Item	Content	Reference Standards
Product Marking	Brand, Ampere Rating	Socay marking standards
Operating Temperature	-55°C to 125°C	IEC60068-2-1/2
Solderability	T=240°C±5°C , t=3sec±0.5sec, Coverage≥95%	MIL-STD-202, Method 208
Resistance to Soldering Heat	10 sec at 260°C	MIL-STD-202, Method 210, Test condition B
Insulation Resistance (after Opening)	10,000 ohms minimum	MIL-STD-202, Method 302, Test Condition A
Thermal Shock	5 cycles, -65°C / +125°C, 15 minutes at each extreme	MIL-STD-202, Method 107, Test Condition B
Mechanical Shock	100G's peak for 6 milliseconds, 3cycles	MIL-STD-202, Method 213, Test I
Vibration	0.03"amplitude, 10-55 Hz in 1 min. 2hrs each XYZ=6hrs	MIL-STD-202, Method 201
Moisture Resistance	10 cycles	MIL-STD-202, Method 106
Salt Spray	5% salt solution, 48hrs	MIL-STD-202, Method 101, Test Condition B

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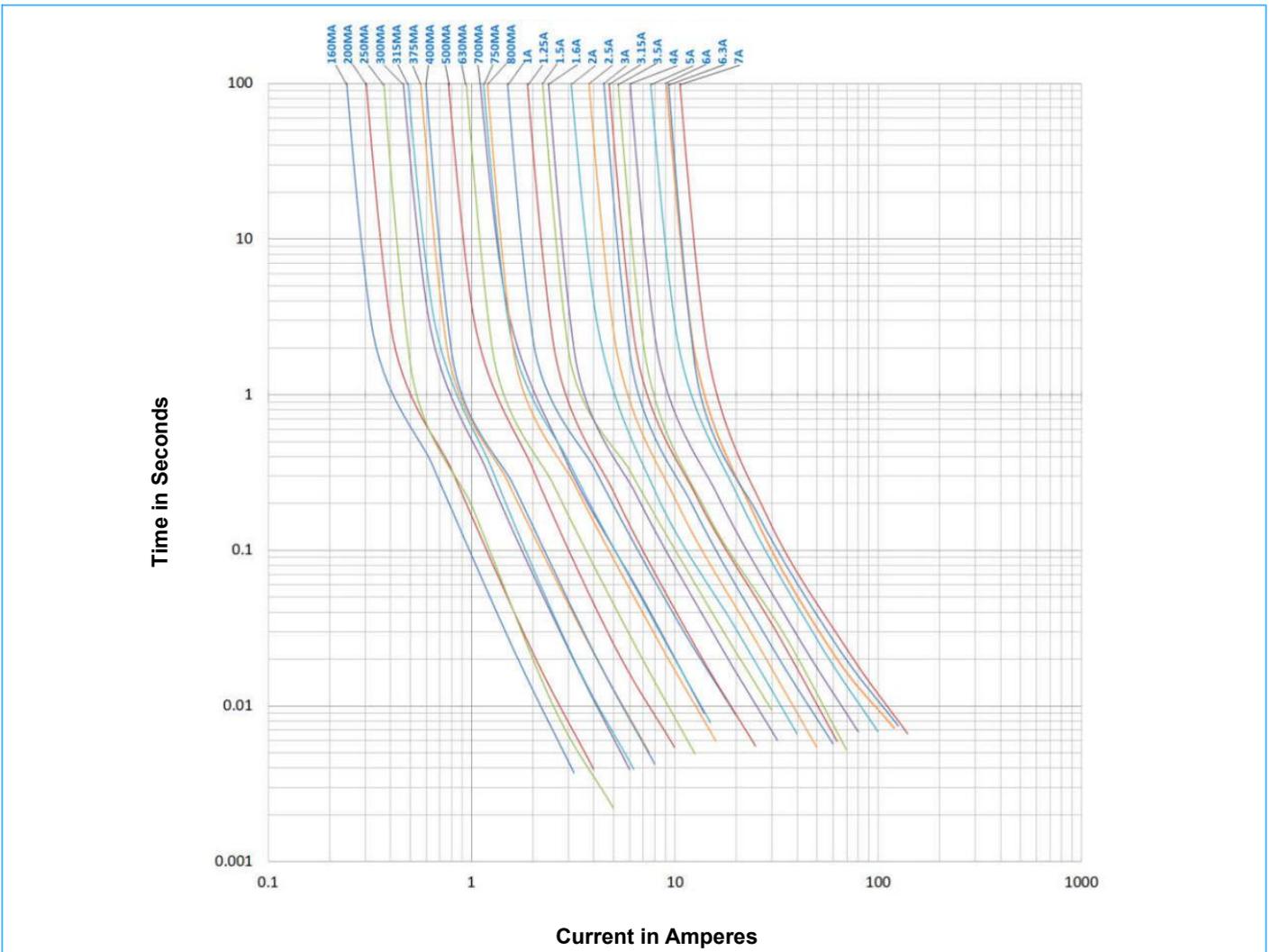
SST 300V Time-Delay Series

Electrical Characteristics

- ◆ Test Condition:
All electrical test is to be conducted with the ambient air at a temperature of 25±5°C.
- ◆ Interrupting Rating:
Breaking Capacity: 50A@300Vac,50A@250Vac,200A@125Vac.
- ◆ Operating Characteristics:

% of Ampere Rating(In)	Blowing Time
100% * In	4 hours Min
200% * In	120 secs Max

Average Time Current Curves

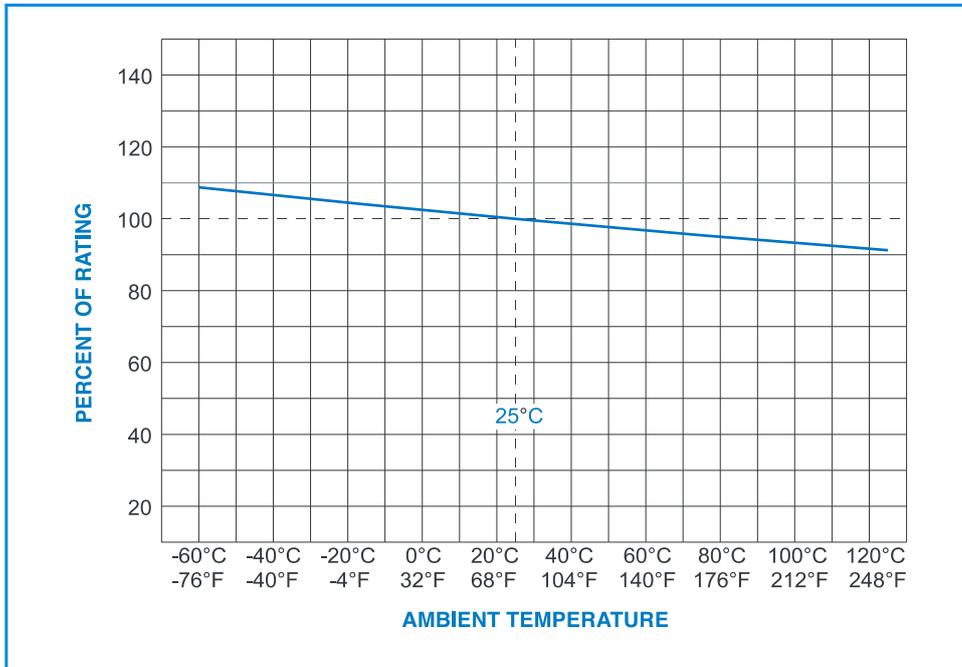


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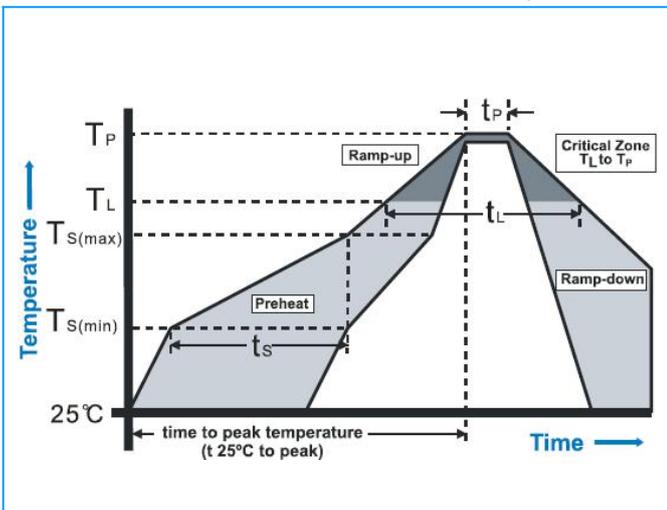
Environmental Characteristics

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from 20~30°C, engineer should consider the environmental temperature's affection to fuses. Please refer: Temperature Rerating Curve:



Recommended Soldering Parameters

- ◆ Wave / Reflow Soldering Parameters: Solder paste process; Solder Pot Temperature: 260°C Max; Solder Dwell Time: 5 seconds max.
- ◆ Hand-Solder Parameters: Solder Iron Temperature: 300±5°C; Heating Time: 1~2s Max.

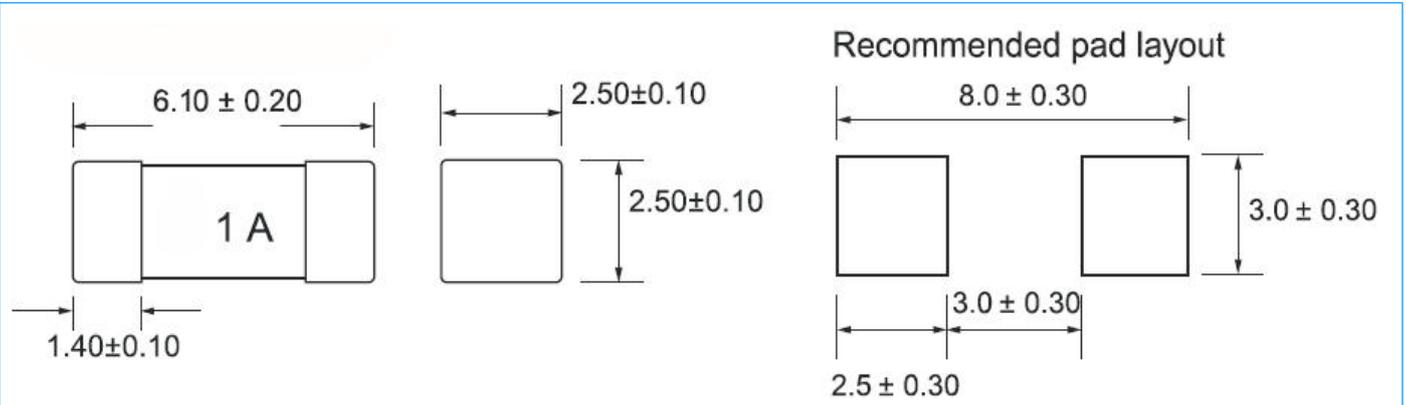


Reflow Condition		Pb-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (ts)	60 -120 seconds
Average ramp up rate ($T_{s(max)}$ to T_p)		5°C /second max.
Reflow	- Temperature (T_L)	220°C
	- Time Max (T_L)	60 seconds
Peak Temperature (T_P)		260°C max
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max

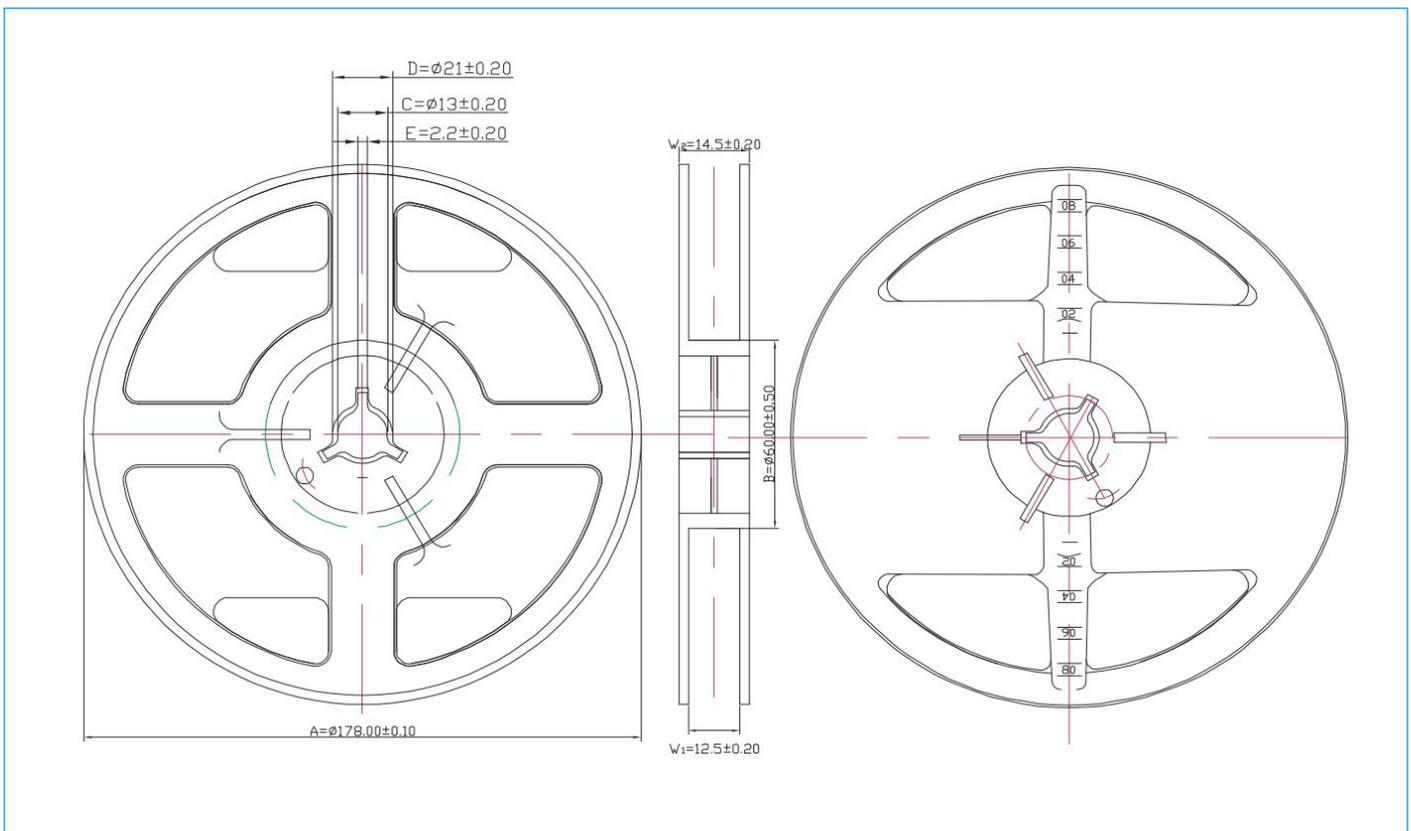
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SST 300V Time-Delay Series

Dimensions and Structure (Unit: mm)



Packaging (Unit: mm)

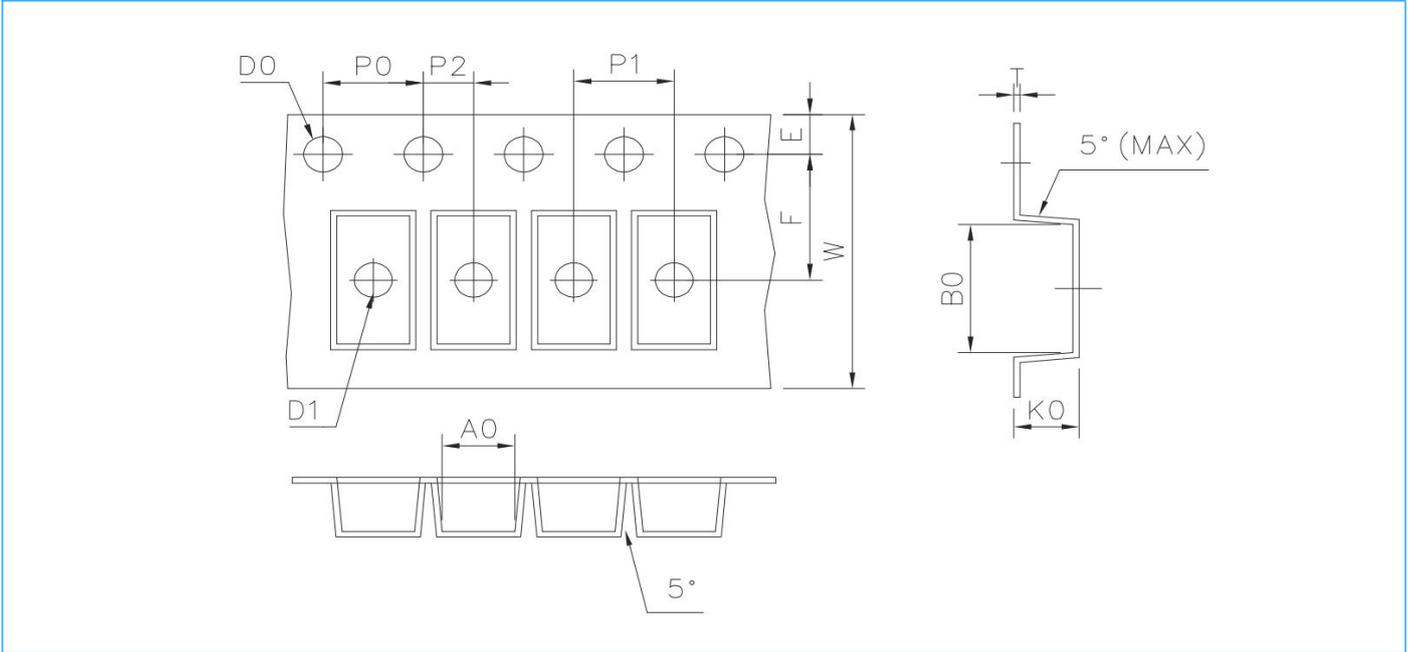


Symbol	A	B	C	D	E	W1	W2
Spec.(mm)	178±0.10	60±0.50	13±0.20	21±0.20	2.2±0.20	12.5±0.20	14.5±0.20

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Packaging (Unit: mm) (Continue)



Symbol	A0	B0	D0	D1	E	F
Spec.(mm)	2.70±0.10	6.40±0.10	1.50+0.10	1.50+0.25	1.75±0.10	5.50±0.10
Symbol	K0	P0	P1	P2	W	t
Spec.(mm)	2.70±0.10	4.00±0.10	4.00±0.10	2.00±0.10	12.00±0.15	0.25±0.05

Packaging Quantity

Part Number	Rated Current (A)	Packaging Option	Quantity
SST 300V Time-Delay Series	≤1A	Tape & Reel	1500 PCS
	>1A	Tape & Reel	1000 PCS