

# SMF5.0(C)A~SMF440(C)A

Rev.B May.-2024

## / Descriptions

200W  $V_{RMW}:5.0V\sim440V$  SOD-123FL  
200W Surface Mount Transient Voltage Suppressor Stand-Off Voltage 5.0V~440V SOD-123FL thin package.

## / Features

O+M\$

For surface mounted applications in order to optimize board space Glass passivated junction Low inductance Plastic package has Underwriters Laboratory Flammability Classifications 94V-0,HF Product.

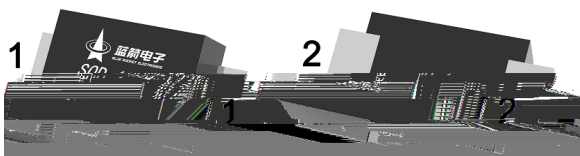
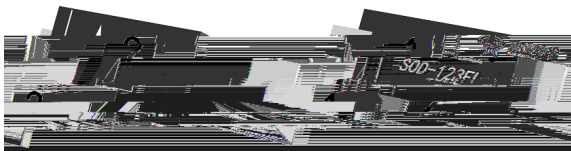
## / Applications

General purpose.

## / Equivalent Circuit



## / Pinning



## / Marking

See Marking Instructions.

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DATA SHEET

Parameter	Symbol	Rating	Unit
Peak Pulse Power Dissipation on $T_a=25$ (Note1,2,5, Fig1)	$P_{PPM}$	200	W
Peak Forward Surge Current(Note3)	$I_{FSM(UNI)}$	20	A
Peak Pulse Current on 10/1000us waveform (Note1) Fig2	$I_{PPM}$	See Table 1	A
Steady State Power Dissipation (Note4)	$P_{M(AV)}$	1	W
Operating Junction and Storage Range	$T_j, T_{stg}$	-55~150	
ESD Voltage per IEC61000-4-2 Contact Air	$V_{ESD1}$ $V_{ESD2}$	$\pm 30$ $\pm 30$	kV
ESD Voltage (HBM)	$V_{ESD}$	16	kV
Typical Thermal Resistance	$R_{JA}$ $R_{JC}$ $R_{JL}$	105 25 32	/W

## NOTES

1. Non-repetitive current pulse per Fig 3 and derated above  $T_A=25$  per Fig 2
2. Mounted on 5mm<sup>2</sup> copper pads to each terminal
3. 8.3ms single half sinewave, or equivalent square wave duty cycle=4 pulses per minutes maximum

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DATA SHEET

Type	Marking	Stand-off Voltage	Breakdown Voltage	Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
		$V_{RWM}$	$V_{BR@I_T}$	$I_T$	$I_R@V_{RWM}$	$V_C@I_{PP}$	$I_{PP}$

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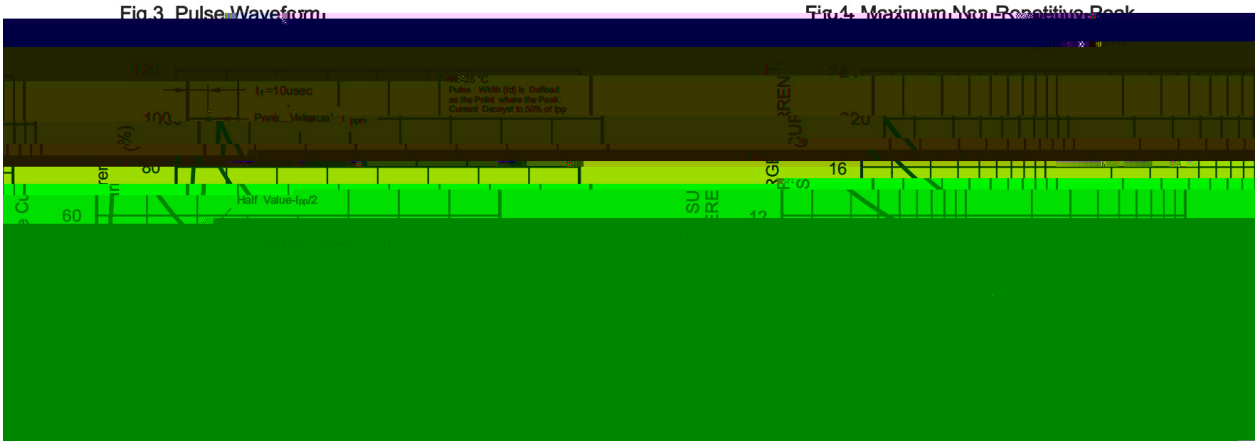
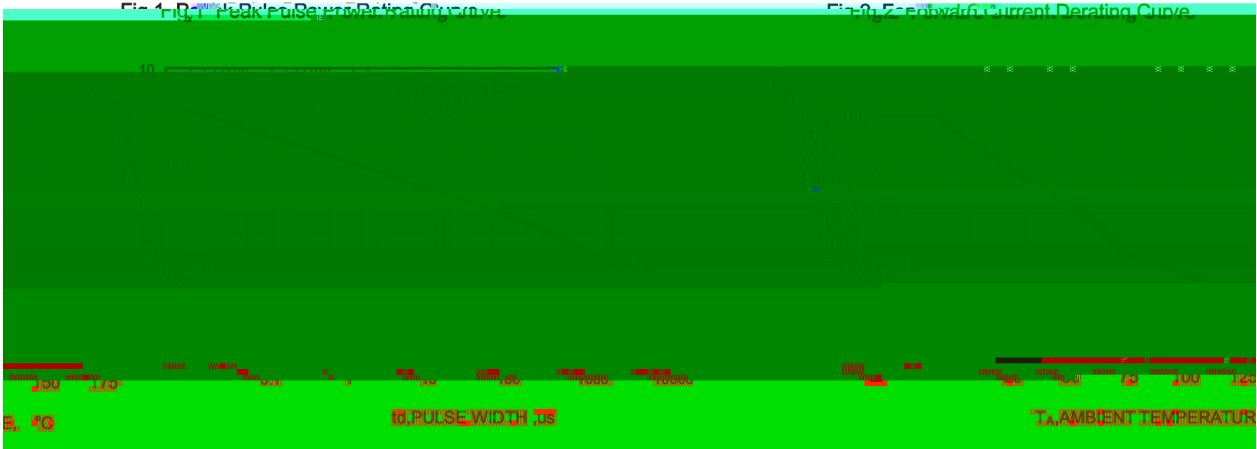


DATA SHEET

## / Electrical Characteristics(Ta=25 )

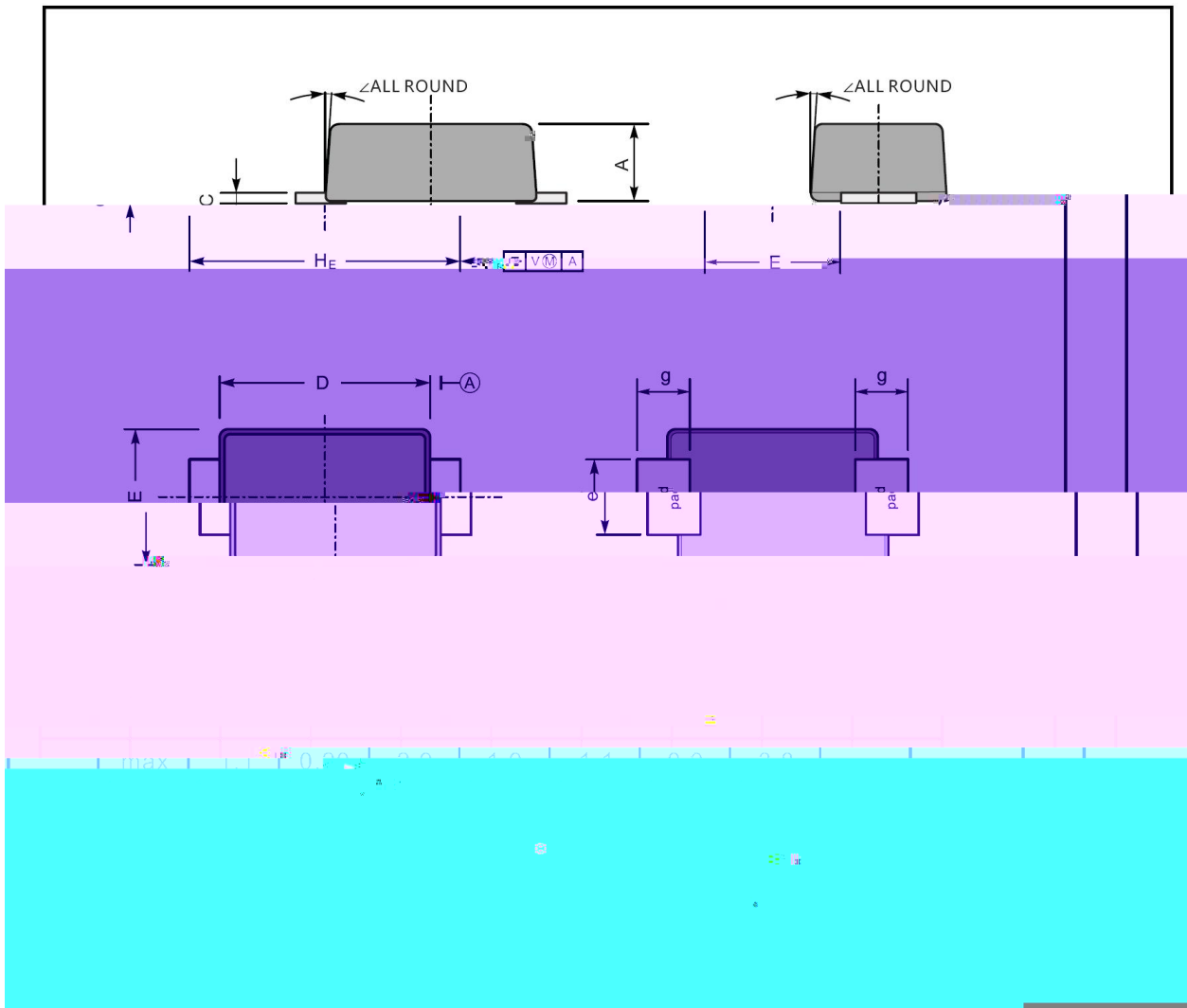
Type		Marking		Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
					V <sub>RMW</sub>	V <sub>BR@IT</sub>				
				Min		Max	I <sub>T</sub>	I <sub>R@VRWM</sub>	V <sub>C@IPP</sub>	I <sub>PP</sub>
Uni	Bi	Uni	Bi	V	V	V	mA	μA	V	A
SMF250A	SMF250CA	E25	CE25	250	279	309	1.0	1.0	405	0.5
SMF300A	SMF300CA	E30	CE30	300	335	371	1.0	1.0	486	0.45
SMF350A	SMF350CA	E35	CE35	350	391	432	1.0	1.0	567	0.4
SMF400A	SMF400CA	E40	CE40	400	447	494	1.0	1.0	648	0.35
SMF440A	SMF440CA	E44	CE44	440	492	543	1.0	1.0	713	0.3

/ Electrical Characteristic Curve

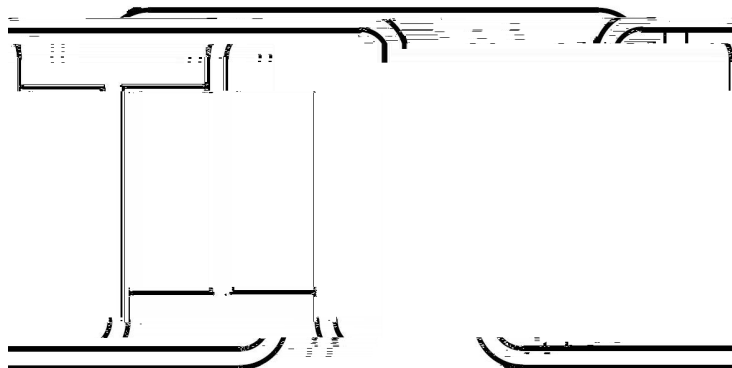


/ Package Dimensions

SOD-123FL



/ Marking Instructions



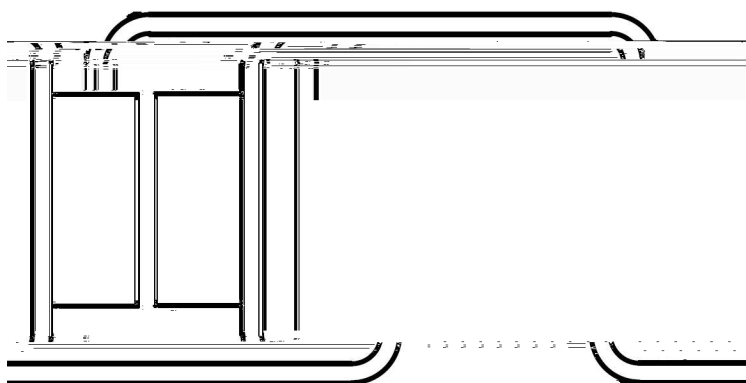
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Note:

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( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)


- |   |        |     |            |          |   |
|---|--------|-----|------------|----------|---|
|   |        |     |            |          |   |
| 1 | 150    | 180 | 60         | 90sec;   | 1.Preheating:150~180 , Time:60~90sec.     |
| 2 | 245..5 |     | 5..0.5sec; |          | 2.Peak Temp.:245..5 , Duration:5..0.5sec. |
| 3 |        |     | 2          | 10 /sec. | 3. Cooling Speed: 2~10 /sec.              |

Note:

/ Resistance to Soldering Heat Test Conditions

260..5	10..1 sec.	Temp.:260±5	Time:10±1 sec
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/ Packaging SPEC.

/ REEL