

Transient Voltage Suppressors 400W SOD-123FL

SMF4L Series

MERITEK

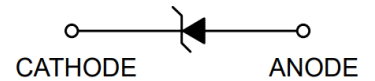
FEATURE

- 400W Peak Pulse Power (10/1000 μ s Waveform), Repetitive Rate:0.01%
- 5.0V to 85V Standoff Voltage
- Fast Response Time
- Excellent Clamping Capability
- Low Leakage
- UL Flammability Classification Rating 94V-0



MECHANICAL DATA

- Case: SOD-123FL, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATINGS

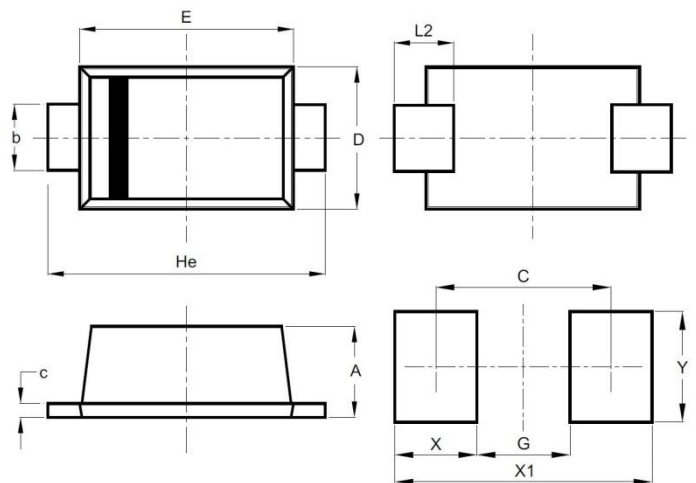
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation On 10/1000 μ s Waveform	P_{PPM}	400	W
Peak Pulse Current On 10/1000 μ s Waveform	I_{PPM}	See Table	A
Power Dissipation on Infinite Heatsink at $T_L = 75^\circ\text{C}$	P_D	1.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, For Unidirectional only	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage at 100A, For Unidirectional only	V_F	3.5	V
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1. $T_A = 25^\circ\text{C}$ ambient temperature unless otherwise specified.
2. Non-repetitive current pulse, and derated above $T_A = 25^\circ\text{C}$.
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
4. SMF4L5.0A~SMF4L9.0A peak pulse power dissipation is 370W min, 400W typical@ 10/1000 μ s.

DIMENSIONS

SOD-123FL	Min (mm)	Max (mm)
A	0.95	1.30
b	0.70	1.20
c	0.05	0.25
D	1.60	1.90
E	2.60	2.90
He	3.50	3.90
L2	0.60	1.00
G	1.95	
C	3.10	
X	1.15	
X1	4.25	
Y	1.22	



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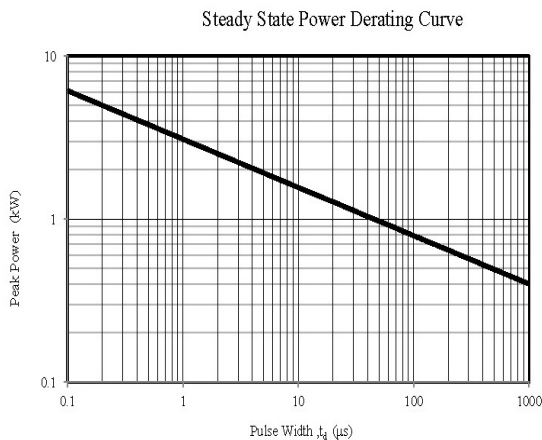
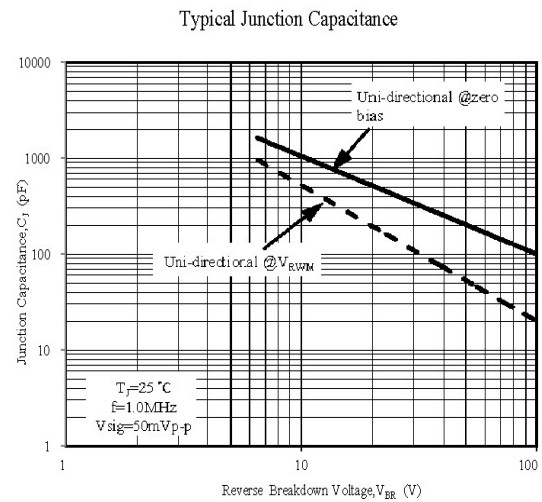
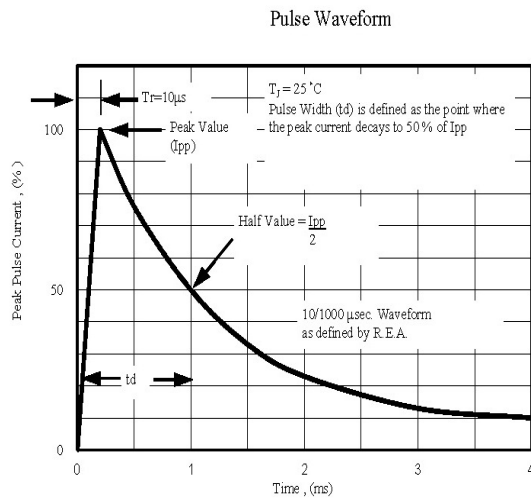
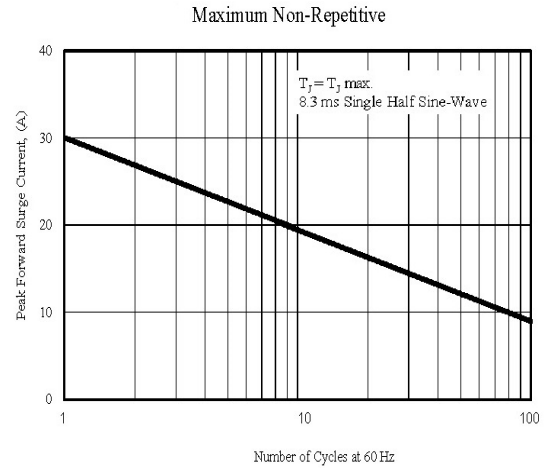
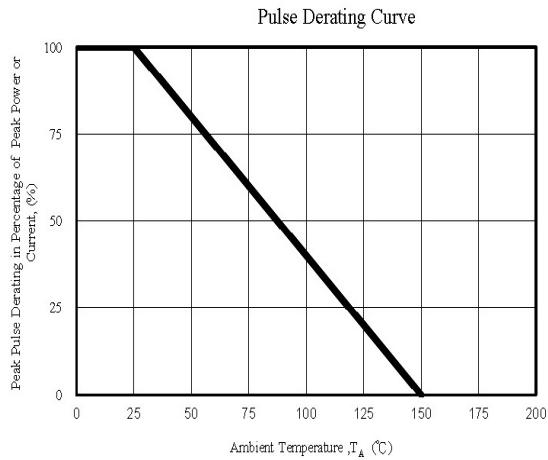
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ELECTRICAL CHARACTERISTICS

Part Number	Working Reverse Voltage	Reverse Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max Clamping Voltage	Reverse Surge Current
Uni-Polar	V _{RWM} (V)	V _{BR} Min(V)	V _{BR} Max(V)	I _T (mA)	I _R (uA) @ V _{RWM}	V _C (V) @ I _{PP}	I _{PP} (A) Max
SMF4L5.0A	5.0	6.40	7.00	10	800	9.2	40.1
SMF4L6.0A	6.0	6.67	7.37	10	800	10.3	35.9
SMF4L6.5A	6.5	7.22	7.98	10	500	11.2	33.1
SMF4L7.0A	7.0	7.78	8.60	10	200	12.0	30.9
SMF4L7.5A	7.5	8.33	9.21	1	100	12.9	28.7
SMF4L8.0A	8.0	8.89	9.83	1	50	13.6	27.2
SMF4L8.5A	8.5	9.44	10.4	1	20	14.4	25.7
SMF4L9.0A	9.0	10.0	11.1	1	10	15.4	24.1
SMF4L10A	10	11.1	12.3	1	5	17.0	23.5
SMF4L11A	11	12.2	13.5	1	1	18.2	22.0
SMF4L12A	12	13.3	14.7	1	1	19.9	20.1
SMF4L13A	13	14.4	15.9	1	1	21.5	18.6
SMF4L14A	14	15.6	17.2	1	1	23.2	17.2
SMF4L15A	15	16.7	18.5	1	1	24.4	16.4
SMF4L16A	16	17.8	19.7	1	1	26.0	15.4
SMF4L17A	17	18.9	20.9	1	1	27.6	14.5
SMF4L18A	18	20.0	22.1	1	1	29.2	13.7
SMF4L20A	20	22.2	24.5	1	1	32.4	12.3
SMF4L22A	22	24.4	26.9	1	1	35.5	11.3
SMF4L24A	24	26.7	29.5	1	1	38.9	10.3
SMF4L26A	26	28.9	31.9	1	1	42.1	9.5
SMF4L28A	28	31.1	34.4	1	1	45.4	8.8
SMF4L30A	30	33.3	36.8	1	1	48.4	8.3
SMF4L33A	33	36.7	40.6	1	1	53.3	7.5
SMF4L36A	36	40.0	44.2	1	1	58.1	6.9
SMF4L40A	40	44.4	49.1	1	1	64.5	6.2
SMF4L43A	43	47.8	52.8	1	1	69.4	5.8
SMF4L45A	45	50.0	55.3	1	1	72.7	5.5
SMF4L48A	48	53.3	58.9	1	1	77.4	5.2
SMF4L51A	51	56.7	62.7	1	1	82.4	4.9
SMF4L54A	54	60.0	66.3	1	1	87.1	4.6
SMF4L58A	58	64.4	71.2	1	1	93.6	4.3
SMF4L60A	60	66.7	73.7	1	1	96.8	4.1
SMF4L64A	64	71.1	78.6	1	1	103	3.9
SMF4L70A	70	77.8	86.0	1	1	113	3.5
SMF4L75A	75	83.3	92.1	1	1	121	3.3
SMF4L78A	78	86.7	95.8	1	1	126	3.2
SMF4L85A	85	94.4	104	1	1	137	2.9

Note: T_A = 25°C ambient temperature unless otherwise specified

CHARACTERISTIC CURVES



*Specifications subject to change without notice.