

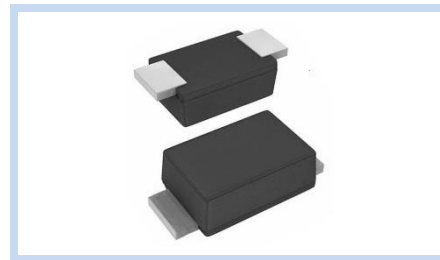
Transient Voltage Suppressors 400W SOD-123FL

SMF4L-E Series

MERITEK

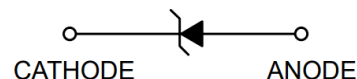
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{KV}$ (Air), $\pm 30\text{KV}$ (Contact)
- 400W Peak Pulse Power (10/1000 μs Waveform)
- 3.3V to 64V Standoff Voltage
- Excellent Clamping Capability Fast Response Time
- Green Molding Compound as per IEC 61249 Standard
- 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

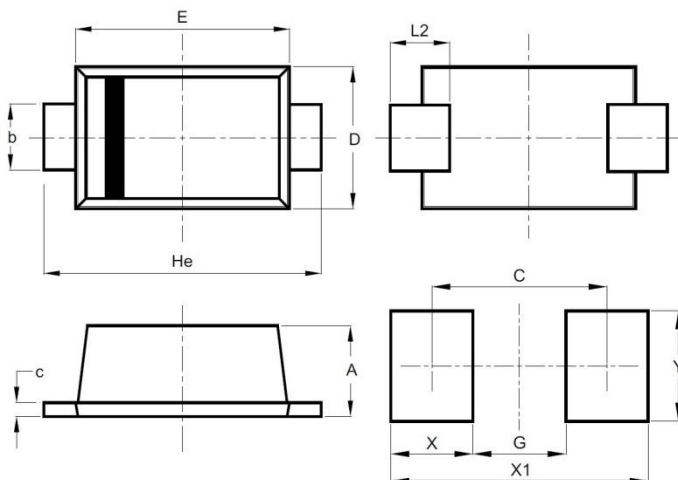
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation On 10/1000 μs Waveform	P_{PPM}	400	W
Peak Pulse Current On 10/1000 μs Waveform	I_{PPM}	See Table	A
Typical Thermal Resistance Junction to Air	$R_{\theta JA}$	200	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 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. Mounted on 5mm² land areas.
4. Mounted on FR4 PCB, single-sided copper, mini pad.

DIMENSIONS

SOD-123FL	Min (mm)	Max (mm)
A	0.90	1.10
b	0.80	1.10
c	0.10	0.20
D	1.70	1.90
E	2.70	2.90
He	3.50	3.70
L2	0.45	0.75
G	1.95	
C	3.10	
X	1.15	
X1	4.25	
Y	1.22	



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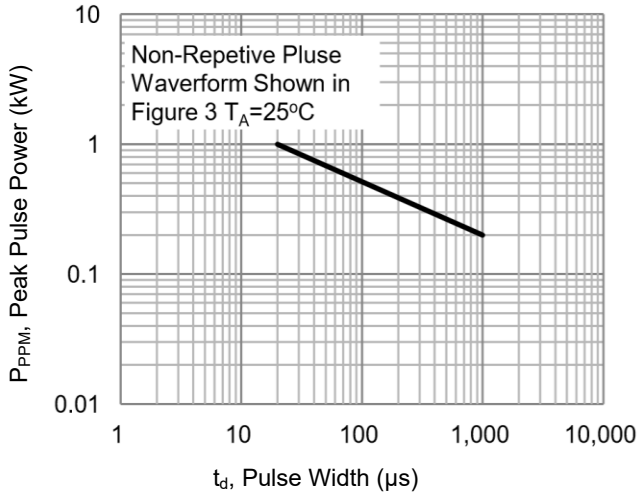
ELECTRICAL CHARACTERISTICS

Part Number	Working Reverse Voltage	Reverse Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max Clamping Voltage	Reverse Surge Current
		V _{BR} Min(V)	V _{BR} Max(V)				
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
SMF4L3.3A-E	3.3	5.20	6.00	10	100	8.5	47.0
SMF4L5.0A-E	5.0	6.40	7.00	10	50	9.2	43.5
SMF4L6.0A-E	6.0	6.67	7.37	10	50	10.3	38.8
SMF4L6.5A-E	6.5	7.22	7.98	10	40	11.2	35.7
SMF4L7.0A-E	7.0	7.78	8.60	10	40	12.0	33.3
SMF4L7.5A-E	7.5	8.33	9.21	1	30	12.9	31.0
SMF4L8.0A-E	8.0	8.89	9.83	1	5.0	13.6	29.4
SMF4L8.5A-E	8.5	9.44	10.4	1	5.0	14.4	27.8
SMF4L9.0A-E	9.0	10.0	11.1	1	0.5	15.4	26.0
SMF4L10A-E	10	11.1	12.3	1	0.5	17.0	23.5
SMF4L11A-E	11	12.2	13.5	1	0.5	18.2	22.0
SMF4L12A-E	12	13.3	14.7	1	0.5	19.9	20.1
SMF4L13A-E	13	14.4	15.9	1	0.1	21.5	18.6
SMF4L14A-E	14	15.6	17.2	1	0.1	23.2	17.2
SMF4L15A-E	15	16.7	18.5	1	0.1	24.4	16.4
SMF4L16A-E	16	17.8	19.7	1	0.1	26.0	15.4
SMF4L17A-E	17	18.9	20.9	1	0.1	27.6	14.5
SMF4L18A-E	18	20.0	22.1	1	0.1	29.2	13.7
SMF4L20A-E	20	22.0	24.5	1	0.1	32.4	12.3
SMF4L22A-E	22	24.4	26.9	1	0.1	35.5	11.3
SMF4L24A-E	24	26.7	29.5	1	0.1	38.9	10.3
SMF4L26A-E	26	28.9	31.9	1	0.1	42.1	9.5
SMF4L28A-E	28	31.1	34.4	1	0.1	45.4	8.8
SMF4L30A-E	30	33.3	36.8	1	0.1	48.4	8.3
SMF4L33A-E	33	36.7	40.6	1	0.1	53.3	7.5
SMF4L36A-E	36	40.0	44.2	1	0.1	58.1	6.9
SMF4L40A-E	40	44.4	49.1	1	0.1	64.5	6.2
SMF4L43A-E	43	47.8	52.8	1	0.1	69.4	5.8
SMF4L45A-E	45	50.0	55.3	1	0.1	72.2	5.5
SMF4L48A-E	48	53.3	58.9	1	0.1	77.4	5.2
SMF4L51A-E	51	56.7	62.7	1	0.1	82.4	4.9
SMF4L54A-E	54	60.0	66.3	1	0.1	87.1	4.6
SMF4L58A-E	58	64.4	71.2	1	0.1	93.6	4.3
SMF4L60A-E	60	66.7	73.7	1	0.1	96.8	4.1
SMF4L64A-E	64	71.1	78.6	1	0.1	103	3.9

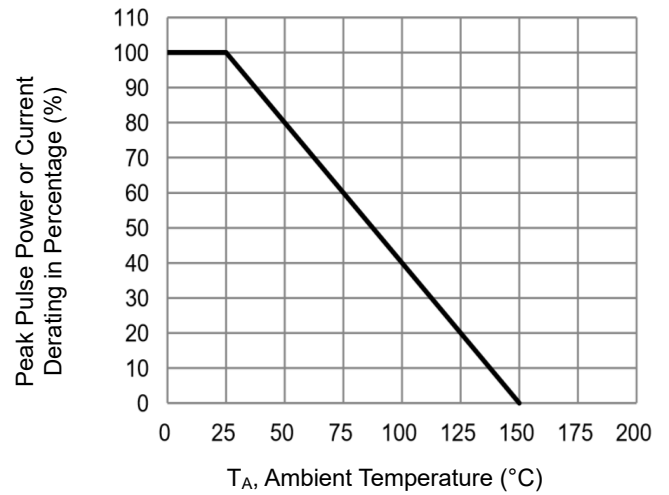
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CHARACTERISTIC CURVES

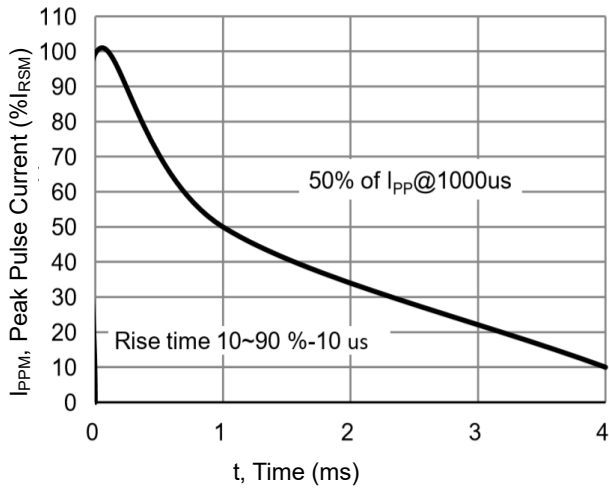
Peak Pulse Power Rating Curve



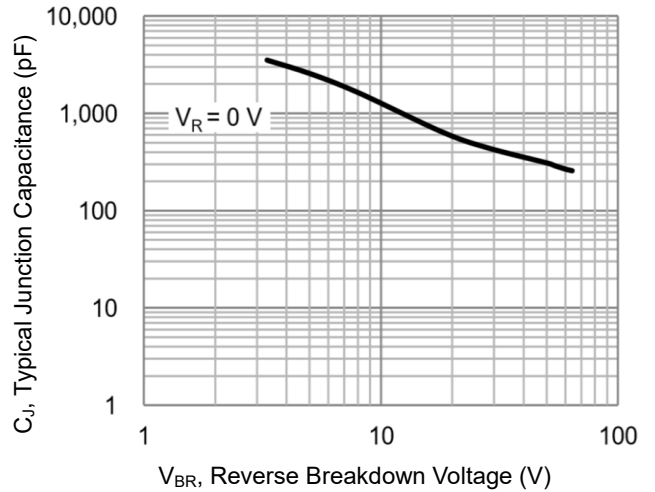
Pulse Derating Curve



Pulse Waveform



Typical Junction Capacitance



*Specifications subject to change without notice.