

SOD-123FL TVS 瞬态电压抑制二极管

■Features 特点

ESD 30KV Air, 30KV contact 静电释放电压 30KV 空气放电与 30KV 接触放电

Solid-state silicon avalanche technology 固态硅雪崩技术

Low leakage current 低漏电流

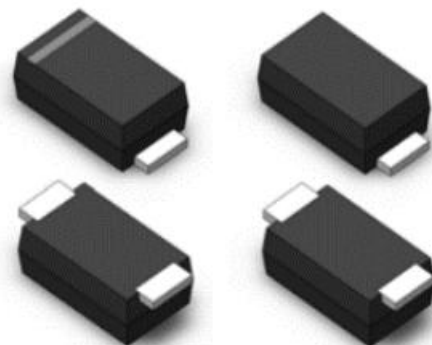
■Applications 应用

Personal digital assistants (PDA) 个人数码助手

Handhelds and notebooks 手持式笔记本

Portable devices 桌面设备

Digital cameras 数码相机



■Internal Schematic Diagram 内部结构



■Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Peak Power Dissipation 峰值功率	P_{PK}	400	W
Reverse Stand-off Work Voltage 反向工作电压	V_{RWM}	5.0~48(CAL) 5.0~85(AL)	V
Peak Pulse Current 峰值脉冲电流	I_{PP}	43.5~2.9	A
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	220	°C/W
Junction/Storage Temperature 结温/储存温度	T_J, T_{stg}	-55~150	°C

■Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

SMFXX(C)AL SERIES

Type Number	V _{RWM}	V _{BR} (V)@I _T		I _T (mA)	V _C (V) @I _{PP}	I _{PP} (A)	I _R (μA) @V _{RWM}	Marking	
	(V)	Min.	Max.					A(UNI)	CA(BI)
SMF5.0(C)AL	5.0	6.40	7.00	10	9.2	43.5(40.1)	40	AE	5CL
SMF6.0(C)AL	6.0	6.67	7.37	10	10.3	38.8(35.9)	40	AG	6CL
SMF6.5(C)AL	6.5	7.22	7.98	10	11.2	35.7(33.1)	30	AK	6VCL
SMF7.0(C)AL	7.0	7.78	8.60	10	12.0	33.3(30.9)	30	AM	7CL
SMF7.5(C)AL	7.5	8.33	9.21	1	12.9	31.0(28.7)	30	AP	7VCL
SMF8.0(C)AL	8.0	8.89	9.83	1	13.6	29.4(27.2)	20	AR	8CL
SMF8.5AL	8.5	9.44	10.4	1	14.4	27.8	10	AT	
SMF9.0(C)AL	9.0	10.0	11.1	1	15.4	26.0(24.1)	5	AV	9CL
SMF10(C)AL	10	11.1	12.3	1	17.0	23.5	2	AX	10CL
SMF11(C)AL	11	12.2	13.5	1	18.2	22.0	1	AZ	11CL
SMF12(C)AL	12	13.3	14.7	1	19.9	20.1	1	BE	12CL
SMF13(C)AL	13	14.4	15.9	1	21.5	18.6	1	BG	13CL
SMF14(C)AL	14	15.6	17.2	1	23.2	17.2	1	BK	14CL
SMF15(C)AL	15	16.7	18.5	1	24.4	16.4	1	BM	15CL
SMF17AL	17	18.9	20.9	1	27.6	14.5	1	BR	
SMF18(C)AL	18	20.0	22.1	1	29.2	13.7	1	BT	18CL
SMF20(C)AL	20	22.2	24.5	1	32.4	12.3	1	BV	20CL
SMF22(C)AL	22	24.4	26.9	1	35.5	11.3	1	BX	22CL
SMF24(C)AL	24	26.7	29.5	1	38.9	10.3	1	BZ	24CL
SMF26(C)AL	26	28.9	31.9	1	42.1	9.5	1	CE	26CL
SMF28(C)AL	28	31.1	34.4	1	45.4	8.8	1	CG	28CL
SMF30(C)AL	30	33.3	36.8	1	48.4	8.3	1	CK	30CL
SMF33(C)AL	33	36.7	40.6	1	53.3	7.5	1	CM	33CL
SMF36(C)AL	36	40.0	44.2	1	58.1	6.9	1	CP	36CL
SMF40(C)AL	40	44.4	49.1	1	64.5	6.2	1	CR	40CL
SMF43(C)AL	43	47.8	52.8	1	69.4	5.8	1	CT	43CL
SMF45(C)AL	45	50.0	55.3	1	72.7	5.5	1	CV	45CL
SMF48(C)AL	48	53.3	58.9	1	77.4	5.2	1	CX	48CL
SMF51AL	51	56.7	62.7	1	82.4	4.9	1	CZ	
SMF58AL	58	64.4	71.2	1	93.6	4.3	1	DE	
SMF60AL	60	66.7	73.7	1	96.8	4.1	1	DG	
SMF64AL	64	71.1	78.6	1	103	3.9	1	DM	
SMF70AL	70	77.8	86.00	1	113	3.5	1	DP	
SMF75AL	75	83.3	92.1	1	121	3.3	1	DR	
SMF78AL	78	86.7	95.8	1	126	3.2	1	DT	
SMF85AL	85	94.4	104	1	137	2.9	1	DV	

■ Typical Characteristic Curve 典型特性曲线

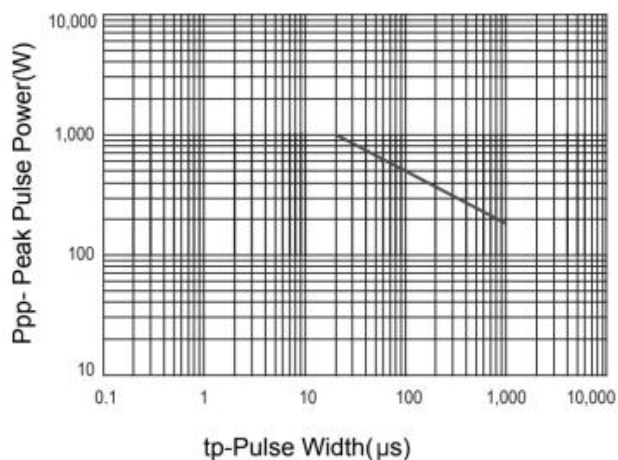


Figure 1. Peak Pulse Power Rating Curve

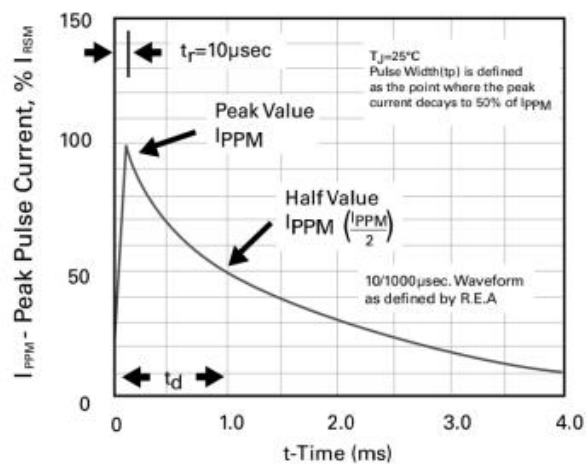


Figure 2. 10/1000 μs Pulse Waveform

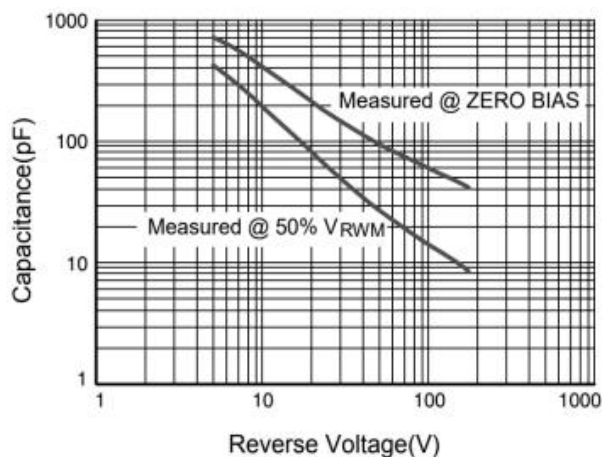


Figure 3. Capacitance vs. Reverse Voltage

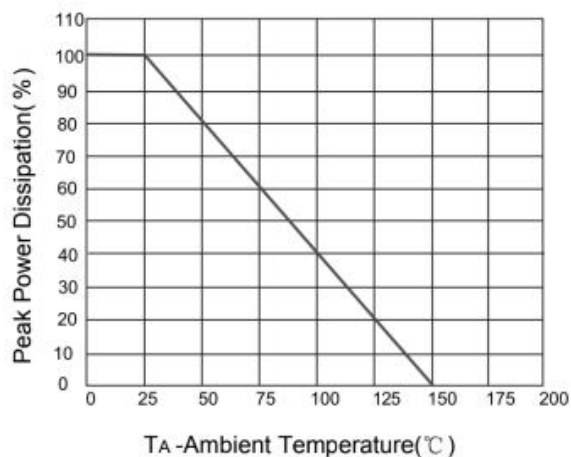
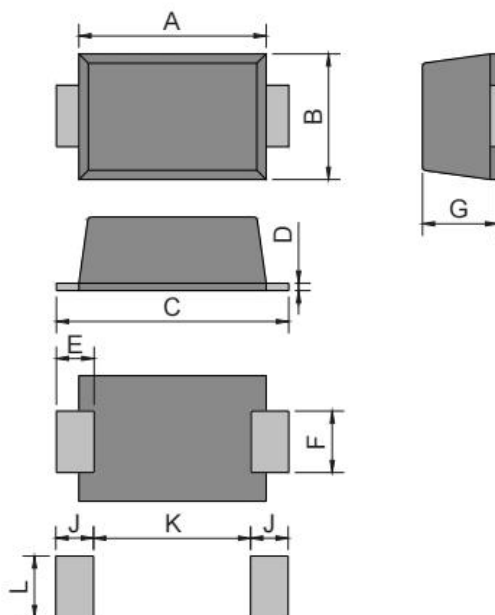


Figure 4. Power Derating curve

■Dimension 外形封装尺寸



SOD-123FL

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.01
E	0.3	0.9	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.70	1.00	0.028	0.039
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	