

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

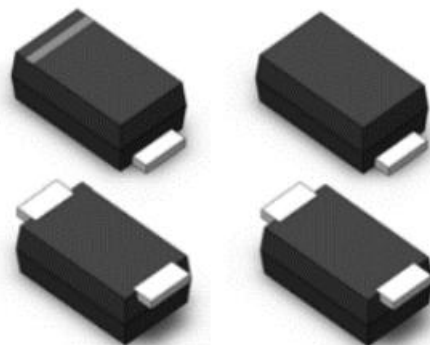
■Applications 应用

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}	5.0~45(CA) 5.0~100(A)	V
Peak Pulse Current 峰值脉冲电流	I_{PP}	43.38~2.46	A
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	300	°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)

Type Number	V _{RWM} (V)	V _{BR} (V)@I _T		I _T (mA)	V _C (V) @I _{PP}	I _{PP} (A)	I _R (μA) @V _{RWM}	Marking	
		Min.	Max.					A(UNI)	CA(BI)
SM4F5.0(C)A	5.0	6.40	7.07	10	9.2	43.38	800	F5.0A	F5.0CA
SM4F6.0(C)A	6.0	6.67	7.37	10	10.3	38.83	800	F6.0A	F6.0CA
SM4F6.5(C)A	6.5	7.22	7.98	10	11.2	35.71	500	F6.5A	F6.5CA
SM4F7.0(C)A	7.0	7.78	8.60	10	12.0	33.33	200	F7.0A	F7.0CA
SM4F7.5(C)A	7.5	8.33	9.21	1	12.9	31.01	100	F7.5A	F7.5CA
SM4F8.0(C)A	8.0	8.89	9.83	1	13.6	29.41	50	F8.0A	F8.0CA
SM4F8.5(C)A	8.5	9.44	10.40	1	14.4	27.78	10	F8.5A	F8.5CA
SM4F9.0(C)A	9.0	10.0	11.1	1	15.4	25.97	5	F9.0A	F9.0CA
SM4F10(C)A	10	11.1	12.3	1	17.0	23.52	2.5	F10A	F10CA
SM4F11(C)A	11	12.2	13.5	1	18.2	21.98	2.5	F11A	F11CA
SM4F12(C)A	12	13.3	17.7	1	19.9	20.1	2.5	F12A	F12CA
SM4F13(C)A	13	14.4	15.9	1	21.5	18.6	1	F13A	F13CA
SM4F14(C)A	14	15.6	17.2	1	23.2	17.24	1	F14A	F14CA
SM4F15(C)A	15	16.7	18.5	1	24.4	16.4	1	F15A	F15CA
SM4F16(C)A	16	17.8	19.7	1	26.0	15.38	1	F16A	F16CA
SM4F17(C)A	17	18.9	20.9	1	27.6	14.5	1	F17A	F17CA
SM4F18(C)A	18	20.0	22.1	1	29.2	13.7	1	F18A	F18CA
SM4F19(C)A	19	21.1	23.3	1	30.6	13.08	1	F19A	F19CA
SM4F20(C)A	20	22.2	24.5	1	32.4	13.08	1	F20A	F20CA
SM4F22(C)A	22	24.4	26.9	1	35.5	12.35	1	F22A	F22CA
SM4F24(C)A	24	26.7	29.5	1	38.9	10.28	1	F24A	F24CA
SM4F26(C)A	26	28.9	31.9	1	42.1	9.5	1	F26A	F26CA
SM4F28(C)A	28	31.1	34.4	1	45.4	8.82	1	F28A	F28CA
SM4F30(C)A	30	33.3	36.8	1	48.4	8.26	1	F30A	F30CA
SM4F33(C)A	33	36.7	40.6	1	53.3	7.5	1	F33A	F33CA
SM4F36(C)A	36	40.0	44.2	1	58.1	6.88	1	F36A	F36CA
SM4F40(C)A	40	44.4	49.1	1	64.5	6.2	1	F40A	F40CA
SM4F43(C)A	43	47.8	52.8	1	69.4	5.76	1	F43A	F43CA
SM4F45(C)A	45	50.0	55.3	1	72.7	5.5	1	F45A	F45CA
SM4F48A	48	53.3	58.9	1	77.4	5.16	1	F48A	
SM4F51A	51	56.7	62.7	1	82.4	4.86	1	F51A	
SM4F54A	54	60.0	66.3	1	87.1	4.6	1	F54A	
SM4F58A	58	64.4	71.2	1	93.6	4.28	1	F58A	
SM4F60A	60	66.7	73.7	1	96.8	4.14	1	F60A	
SM4F64A	64	71.1	78.6	1	103	3.88	1	F64A	
SM4F70A	70	77.8	86	1	113	3.54	1	F70A	
SM4F75A	75	83.3	92.1	1	121	3.3	1	F75A	
SM4F78A	78	86.7	95.8	1	126	3.18	1	F78A	
SM4F80A	80	88.8	97.6	1	129	3.1	1	F80A	
SM4F85A	85	94.4	104	1	137	2.92	1	F85A	
SM4F90A	90	100	111	1	146	2.74	1	F90A	
SM4F100A	100	111	123	1	162	2.46	1	F100A	

■ Typical Characteristic Curve 典型特性曲线

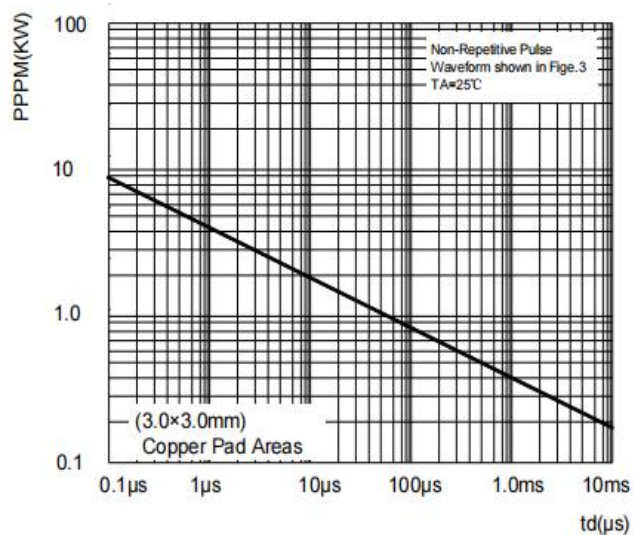


Figure 1. Peak Pulse Power Rating Curve

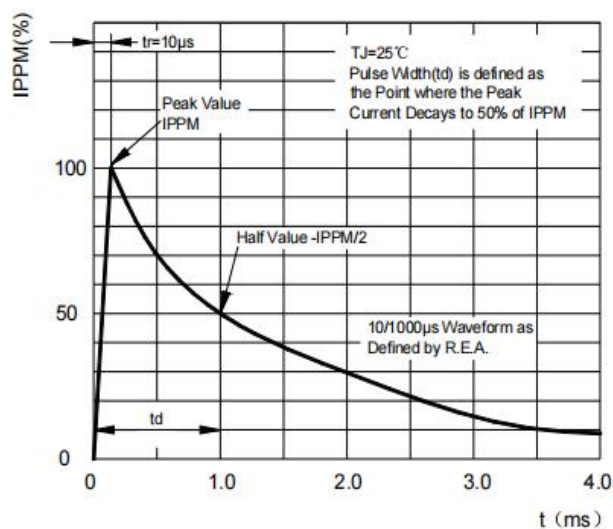


Figure 2. 10/1000 μs Pulse Waveform

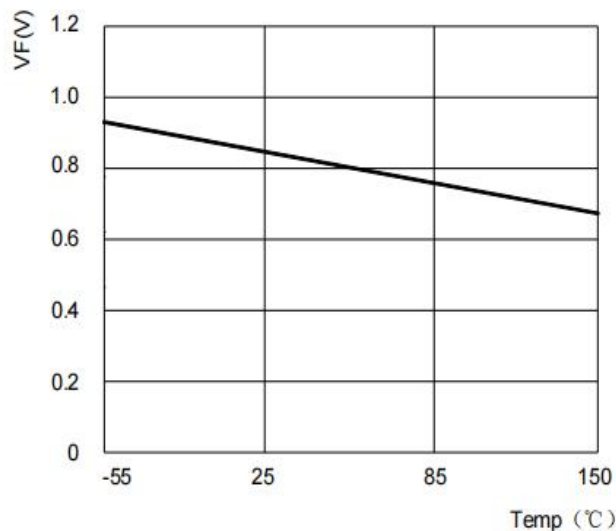


Figure 3. Forward Voltage curve

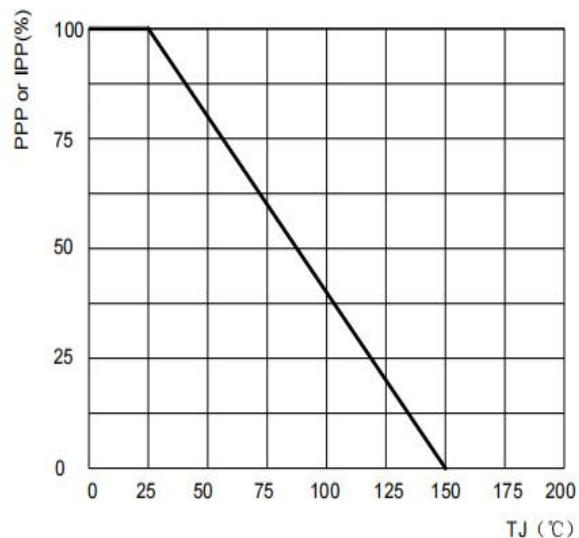
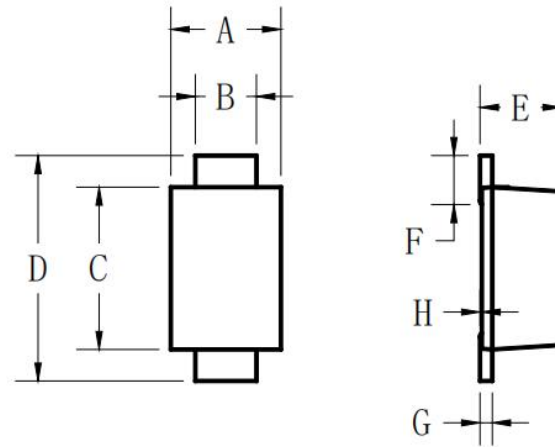


Figure 4. Power Derating curve

■Dimension 外形封装尺寸

SOD-123FL



Dimensions in millimeters

SOD-123FL		
Dim	Min	Max
A	1.60	1.90
B	0.90	1.10
C	2.55	2.85
D	3.60	3.90
E	1.00	1.20
F	0.40	0.90
G	0.10	0.25
H	0.02	0.05