



1. 主要用途与主要特点

1.1 主要用途

小功率稳压管主要用于移动电话，手持设备和高密度电脑主板等产品的电路电压调整。

1.2 主要特点

- 适合高密度应用的小型化封装尺寸
- 5%的高精度稳压电压稳定性
- 高可靠性芯片和封装工艺

2. 封装管芯示意图



3. 电参数极限值

除非另有规定， $T_{amb} = 25^{\circ}\text{C}$

参 数 名 称	符号	额定值	单位
正向电压 ($I_F=10\text{mA}$)	V_F	0.85	V
总耗散功率 (FR-5 版, 注 1)	P_D	500	mW
热阻 (FR-5 Board, 注 1)	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$
热阻 (AL 基板, 注 2)	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$
最高工作结温	T_j	150	$^{\circ}\text{C}$
贮存温度	T_{stg}	-55~150	$^{\circ}\text{C}$

注 1:FR-5=1.0*0.75*0.62 in.

注 2:Alumina=0.4*0.3*0.024 in., 99.5% alumina

4. 电参数特性表

Type	$V_Z @ I_{ZT}=5\text{mA}$			$ZZ @ I_{ZT}=1\text{mA}$	$ZZ @ I_{ZT}=5\text{mA}$	$ZZ @ I_{ZT}=20\text{mA}$	I_R	V_R	Typical Temperature Coefficient @ $I_Z = 5\text{mA}$	
	Min	Nom	Max	Ω	Ω	Ω	μA	V	Min	Max
BZT52C3V0-7-F	2.85	3	3.15	570	90	47.5	8	1	-3.5	0



5. 特性曲线图表

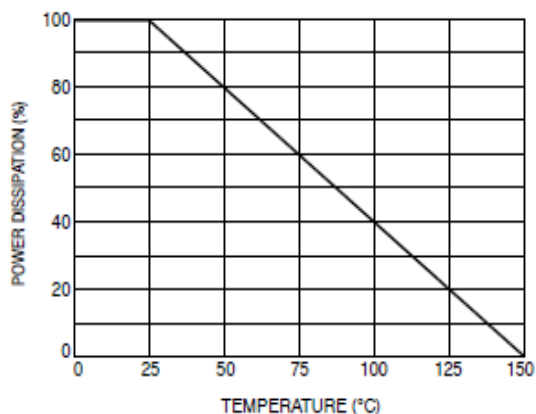


图1 最大连续功率损耗

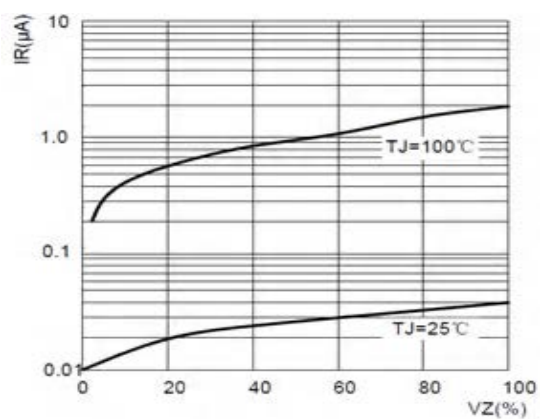


图2 典型反向特性

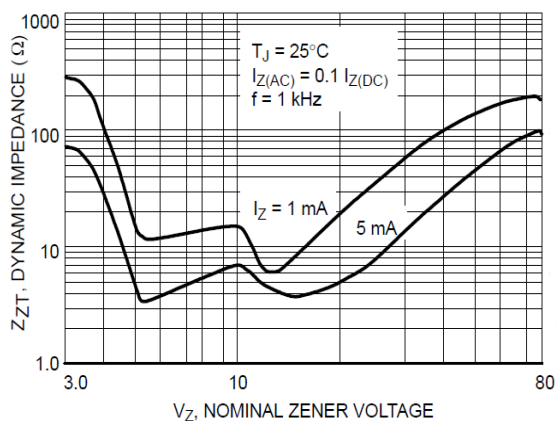


图3 反向电压与阻抗特性曲线

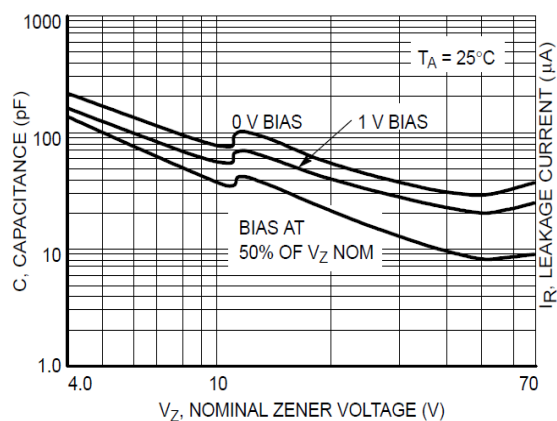
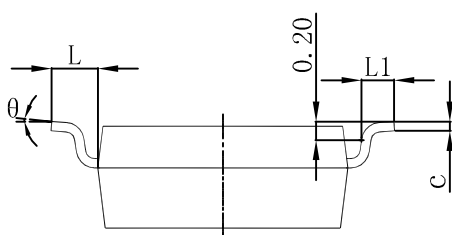
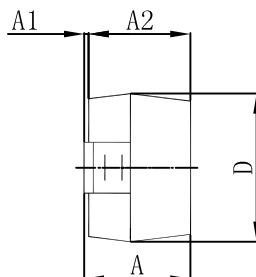
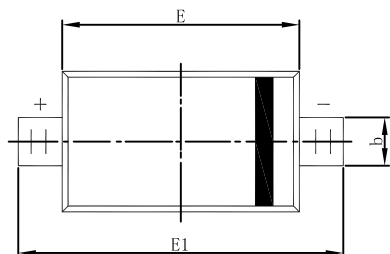


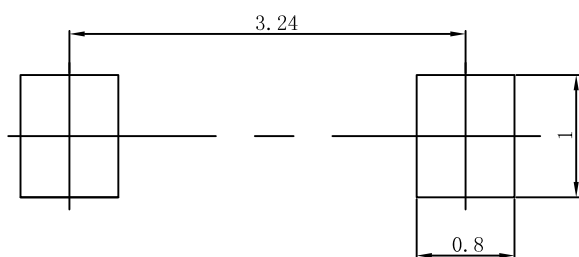
图4 典型电容特性曲线



SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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