



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 (IF=10mA)	VF	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

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

DEVICE	VZ(V) @ IZ=5mA			ZZ@ IZ1=1mA	ZZ @ IZ2 = 5 mA	ZZ @ IZ3 = 20mA	IR@VR	VR	Typical Temperature Coefficient(mV/°C)@ IZ=5mA	
	MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
HBZT52C2V4T1G	2.28	2.4	2.52	570	95	47.5	40	1	-3.5	0
HBZT52C2V7T1G	2.57	2.7	2.84	570	95	47.5	16	1	-3.5	0
HBZT52C3V0T1G	2.85	3	3.15	570	90	47.5	8	1	-3.5	0
HBZT52C3V3T1G	3.14	3.3	3.47	570	90	38	4	1	-3.5	0
HBZT52C3V6T1G	3.42	3.6	3.78	570	85	38	4	1	-3.5	0
HBZT52C3V9T1G	3.72	3.9	4.08	570	85	28.5	2.4	1	-3.5	0
HBZT52C4V3T1G	4.09	4.3	4.52	570	85	28.5	2.4	1	-3.5	0
HBZT52C4V7T1G	4.47	4.7	4.94	475	75	14	2.4	2	-3.5	0.2
HBZT52C5V1T1G	4.85	5.1	5.36	455	57	14	1.6	2	-2.7	1.2
HBZT52C5V6T1G	5.32	5.6	5.88	380	38	9.5	0.8	2	-2	2.5
HBZT52C6V2T1G	5.89	6.2	6.51	150	9.5	5.7	2.4	4	0.4	3.7
HBZT52C6V8T1G	6.46	6.8	7.14	76	14.2	5.7	1.6	4	1.2	4.5
HBZT52C7V5T1G	7.13	7.5	7.88	76	14.2	5.7	0.8	5	2.5	5.3
HBZT52C8V2T1G	7.79	8.2	8.61	76	14.2	5.7	0.56	5	3.2	6.2
HBZT52C9V1T1G	8.65	9.1	9.56	95	14.2	7.6	0.16	7	3.8	7.0
HBZT52C10T1G	9.50	10	10.50	142.5	19	9.5	0.08	8	4.5	8.0
HBZT52C11T1G	10.45	11	11.55	142.5	19	9.5	0.08	8	5.4	9.0
HBZT52C12T1G	11.4	12	12.60	150	23.7	9.5	0.08	8	6.0	10.0
HBZT52C13T1G	12.35	13	13.65	170	28.5	14.2	0.08	8	7.0	11.0
HBZT52C15T1G	14.25	15	15.75	190	28.5	19	0.04	11	9.2	13.0
HBZT52C16T1G	15.2	16	16.80	190	38	19	0.04	11	10.4	14.0
HBZT52C18T1G	17.10	18	18.90	213	42.7	19	0.04	13	12.4	16.0
HBZT52C20T1G	19.0	20	21.0	213	52.2	19	0.04	14	14.4	18.0
HBZT52C22T1G	20.9	22	23.10	237	52.2	23.7	0.04	15	16.4	20.0
HBZT52C24T1G	22.8	24	25.2	250	66.5	23.7	0.04	17	18.4	22.0



DEVICE	VZ(V) @ IZ=2mA			ZZ @ IZ = 0.5 mA	ZZ @ IZ = 2 mA	ZZ @ IZ = 10mA	IR@VR	VR	Typical Temperature Coefficient(mV/°C)@ IZ=2mA	
	MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
HBZT52C27T1G	25.65	27	28.35	295	75	43	0.04	19	21.4	25.3
HBZT52C30T1G	28.50	30	31.50	295	75	48	0.04	21	24.4	29.4
HBZT52C33T1G	31.35	33	34.65	320	75	53	0.04	23	27.4	33.4
HBZT52C36T1G	34.20	36	37.80	345	85	58	0.04	25	30.4	37.4
HBZT52C39T1G	37.05	39	40.95	345	125	68	0.04	27	33.4	41.2
HBZT52C43T1G	40.85	43	45.15	370	145	78	0.04	30	37.6	46.6
HBZT52C47T1G	44.65	47	49.35	370	165	88	0.04	33	42.0	51.8
HBZT52C51T1G	48.45	51	53.55	395	175	98	0.04	36	46.6	57.2
HBZT52C56T1G	52.2	56	58.8	420	195	108	0.04	39	52.2	63.8
HBZT52C62T1G	58.9	62	65.1	445	210	118	0.04	43	58.8	71.6
HBZT52C68T1G	64.6	68	71.4	470	235	128	0.04	48	65.6	79.8
HBZT52C75T1G	71.25	75	78.75	495	250	138	0.04	53	73.4	88.6



5. 特性曲线图表

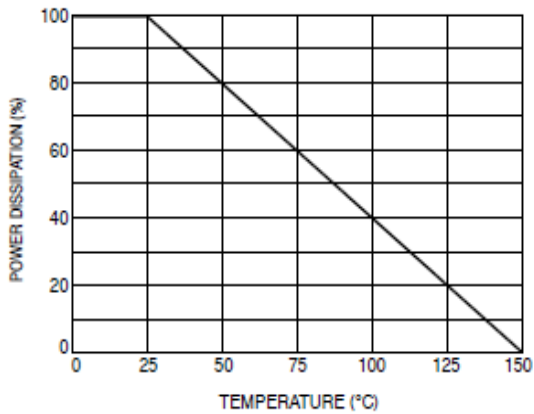


图 1 最大连续功率损耗

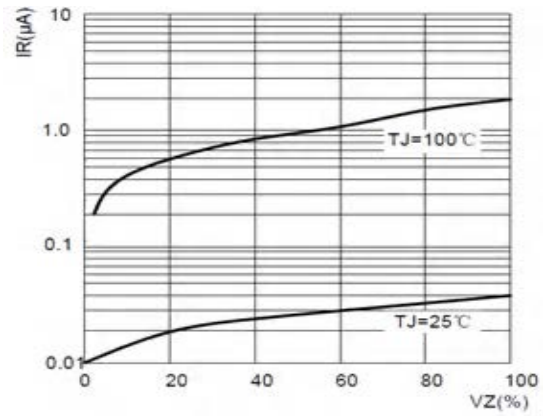


图 2 典型反向特性

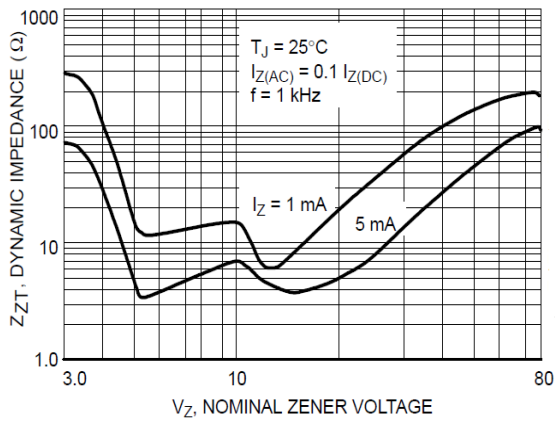


图 3 反向电压与阻抗特性曲线

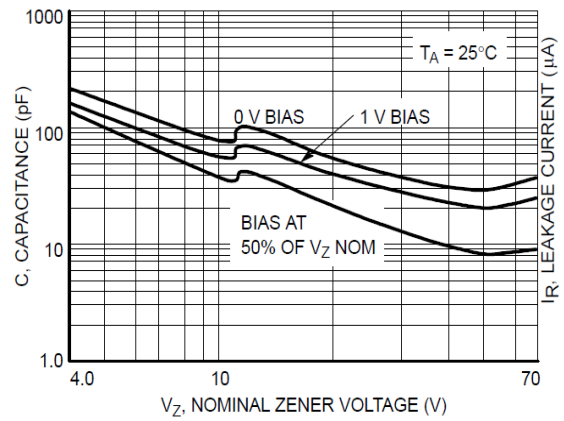
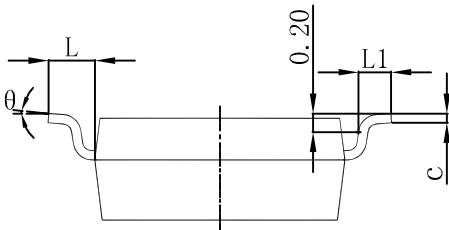
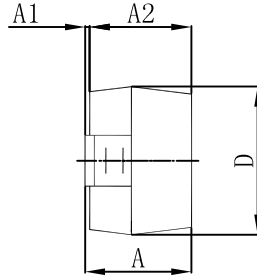
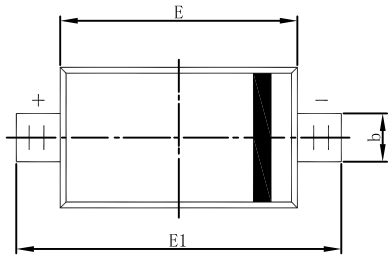


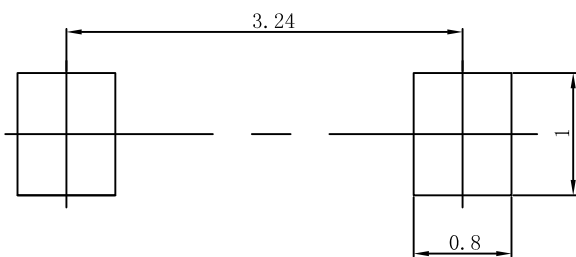
图 4 典型电容特性曲线



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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