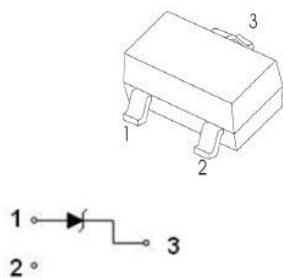


SOT-23 Plastic-Encapsulate Zener Diode**SOT-23****特征 Features**

齐纳击穿阻抗低; Low Zener Impedance
 最大功率耗散 300mW; Power Dissipation of 300mW
 高稳定性和可靠性。 High Stability and High Reliability

机械数据 Mechanical Data

封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
 极性: 色环端为负极 Polarity: Color band denotes cathode end
 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0

安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
功率消耗 Power Dissipation.(Note 1)	Pd	300	mW
正向压降 Forward Voltage @IF=10mA.(Note 2)	Vf	0.9	V
工作结温 Junction temperature	Tj	150	°C
存储温度 Storage temperature range	Ts	-65-+150	°C
结环热阻 Thermal resistance junction to ambient	RthJA	417	K/W

NOTES:

- Valid provided that device terminals are kept at ambient temperature.
- Test with pulse, period=5ms, pulse width=300us.
- f=1KHz

电特性 (TA = 25°C 除非另有规定)

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

PART NUMBER	MARKING CODE	ZENER VOLTAGE RANGE			TEST CURRENT		REVERSE LEAKAGE CURRENT		DYNAMIC RESISTANCE f = 1 kHz	
		Vz at IZT1			IZT1	IZT2	IR at VR		ZZ at IZT1	ZZK at IZT2
		V			mA		μA	V		
		MIN.	NOM.	MAX.					MAX.	MAX.
BZX84B2V4	Z50	2.35	2.4	2.45	5	1	50	1	100	275
BZX84B2V7	Z51	2.65	2.7	2.75	5	1	20	1	100	600
BZX84B3V0	Z52	2.94	3.0	3.06	5	1	10	1	95	600
BZX84B3V3	Z53	3.23	3.3	3.37	5	1	5	1	95	600
BZX84B3V6	Z54	3.53	3.6	3.67	5	1	5	1	90	600
BZX84B3V9	Z55	3.82	3.9	3.98	5	1	3	1	90	600
BZX84B4V3	Z56	4.21	4.3	4.39	5	1	3	1	90	600
BZX84B4V7	Z57	4.61	4.7	4.79	5	1	3	2	80	500
BZX84B5V1	Z58	5.0	5.1	5.2	5	1	2	2	60	480
BZX84B5V6	Z59	5.49	5.6	5.71	5	1	1	2	40	400
BZX84B6V2	Z60	6.08	6.2	6.32	5	1	3	4	10	150
BZX84B6V8	Z61	6.66	6.8	6.94	5	1	2	4	15	80
BZX84B7V5	Z62	7.35	7.5	7.65	5	1	1	5	15	80
BZX84B8V2	Z63	8.04	8.2	8.36	5	1	0.7	5	15	80
BZX84B9V1	Z64	8.92	9.1	9.28	5	1	0.5	6	15	100
BZX84B10	Z65	9.8	10	10.2	5	1	0.2	7	20	150
BZX84B11	Z66	10.8	11	11.2	5	1	0.1	8	20	150
BZX84B12	Z67	11.8	12	12.2	5	1	0.1	8	25	150
BZX84B13	Z68	12.7	13	13.3	5	1	0.1	8	30	170

BZX84B15	Z69	14.7	15	15.3	5	1	0.05	10.5	30	200
BZX84B16	Z70	15.7	16	16.3	5	1	0.05	11.2	40	200
BZX84B18	Z71	17.6	18	18.4	5	1	0.05	12.6	45	225
BZX84B20	Z72	19.6	20	20.4	5	1	0.05	14	55	225
BZX84B22	Z73	21.6	22	22.4	5	1	0.05	15.4	55	250
BZX84B24	Z74	23.5	24	24.5	5	1	0.05	16.8	70	250
BZX84B27	Z75	26.5	27	27.5	2	0.5	0.05	18.9	80	300
BZX84B30	Z76	29.4	30	30.6	2	0.5	0.05	21	80	300
BZX84B33	Z77	32.3	33	33.7	2	0.5	0.05	23.1	80	325
BZX84B36	Z78	35.3	36	36.7	2	0.5	0.05	25.2	90	350
BZX84B39	Z79	38.2	39	39.8	2	0.5	0.05	27.3	130	350
BZX84B43	Z80	42.14	43	43.86	2	0.5	0.05	30.1	150	375
BZX84B47	Z81	46.06	47	47.94	2	0.5	0.05	32.9	170	375
BZX84B51	Z82	49.98	51	52.02	2	0.5	0.05	35.7	180	400

典型特性曲线 Typical Characteristics at $T_j = \text{constant}$ (pulsed)

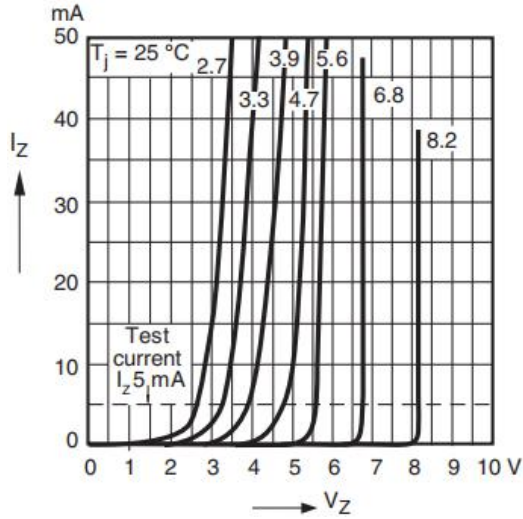


Fig. 1-Zener Characteristic1

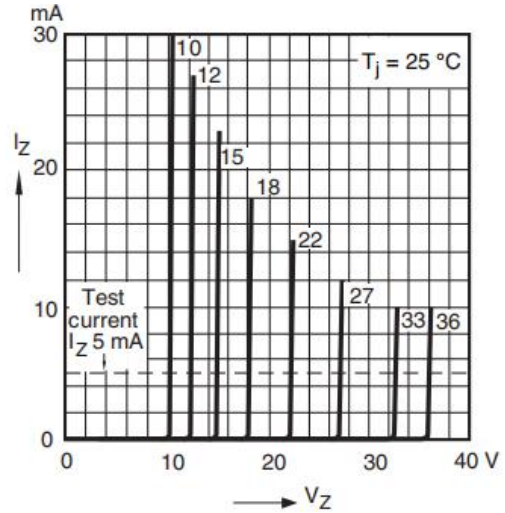


Fig. 2-Zener Characteristic2

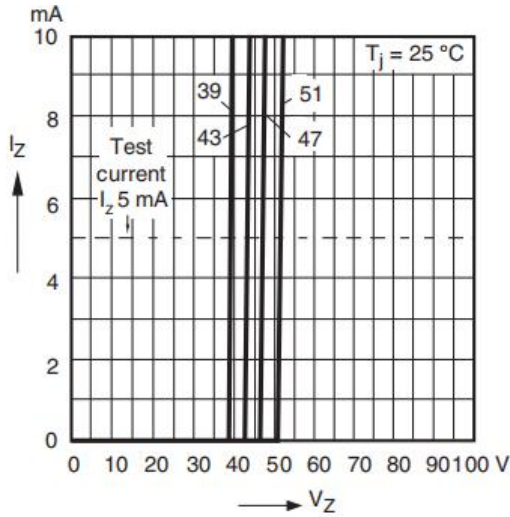


Fig. 3-Zener Characteristic3

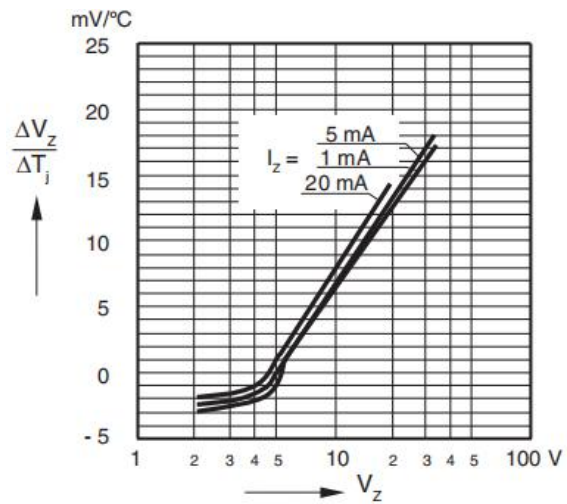


Fig. 4-Temperature Dependence of Zener Voltage vs. Zener Voltage

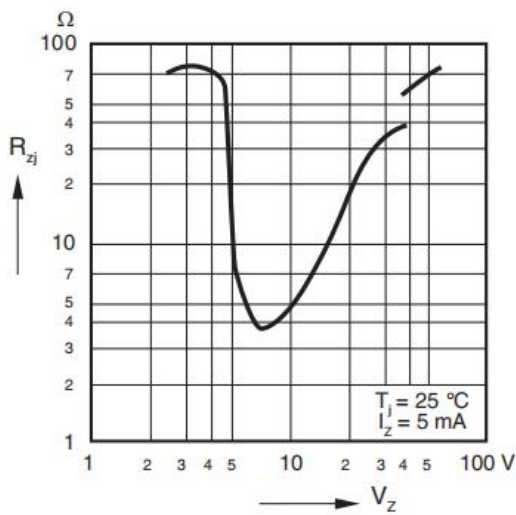


Fig. 5-Dynamic Resistance vs. Zener Voltage

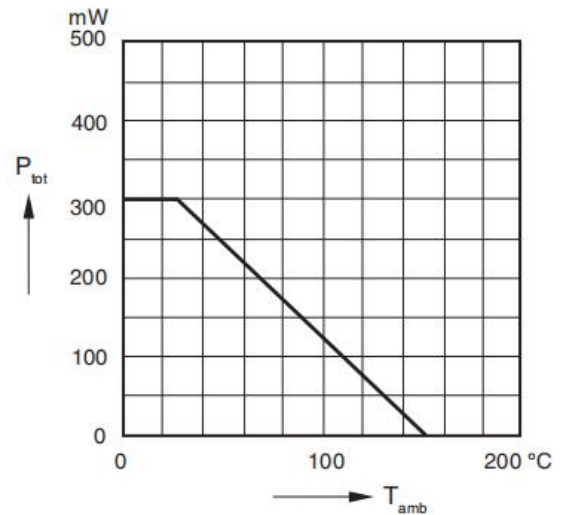
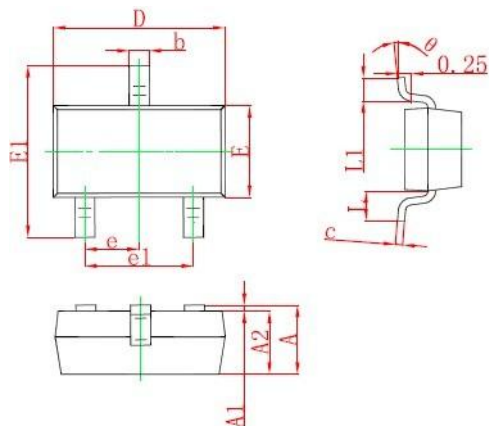


Fig. 6-Power Dissipation vs. Ambient Temperature

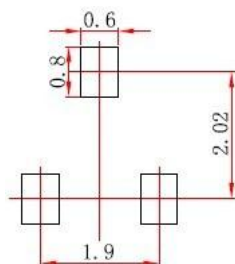
SOT-23 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
e	0°	8°	0°	8°

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



Note:

1. Controlling dimension: In millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.