

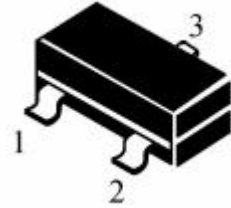
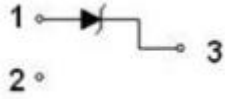
BZX84C2V4 THRU BZX84C75

Silicon Planar Zener Diodes



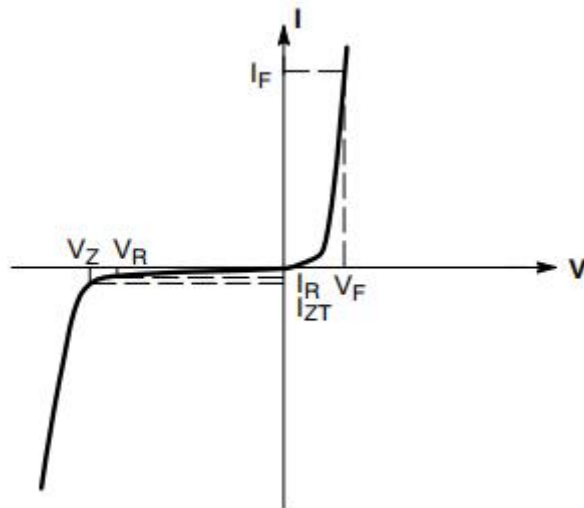
SOT-23 Surface Mounted Zener Diode 表面贴装稳压二极管

■SOT-23 Internal Configuration 内部结构



■Features 特点

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Power dissipation 耗散功率	P_D ($T_a=25^\circ\text{C}$)	300	mW
Forward Current 正向电流	I_F	250	mA
Forward Voltage 正向电压	V_F (@ $I_F=10\text{mA}$)	0.9	V
Reverse Voltage 反向电压	V_Z	2.4-75	V
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	125°C, -55to+125°C	



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■ 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	$V_Z(\text{V})$		DIFFERENTIAL RESISTANCE $r_{dif}(\Omega)$				TEMP. COEFF. $S_Z(\text{mV/K})$			$I_R(\mu\text{A})$		Marking
	@ $I_Z=5\text{mA}$		@ $I_Z=1\text{mA}$		@ $I_Z=5\text{mA}$		@ $I_Z=5\text{mA}$			@ $V_R(\text{V})$		
	MIN.	MAX.	TYP.	MAX.	TYP.	MAX.	MIN.	TYP.	MAX.	I_R	@ V	
BZX84C2V4	2.2	2.6	325	600	80	100	-3.5	-2.1	0	50	1	Z11
BZX84C2V7	2.5	2.9	325	600	80	100	-3.5	-2.1	0	20	1	Z12
BZX84C3V0	2.8	3.2	325	600	80	95	-3.5	-2.1	0	10	1	Z13
BZX84C3V3	3.1	3.5	350	600	85	95	-3.5	-2.4	0	5	1	Z14
BZX84C3V6	3.4	3.8	375	600	85	90	-3.5	-2.4	0	5	1	Z15
BZX84C3V9	3.7	4.1	400	600	85	90	-3.5	-2.5	0	3	1	Z16
BZX84C4V3	4.0	4.6	400	600	85	90	-3.5	-2.5	0	3	1	Z17
BZX84C4V7	4.4	5.0	410	600	80	90	-3.5	-2.5	0	3	2	Z1
BZX84C5V1	4.8	5.4	425	500	50	80	-3.5	-1.4	0.2	2	2	Z2
BZX84C5V6	5.2	6.0	400	480	40	60	-2.7	-0.8	1.2	1	2	Z3
BZX84C6V2	5.8	6.6	80	400	15	40	-2.0	1.2	2.5	3	4	Z4
BZX84C6V8	6.4	7.2	40	150	6	10	0.4	2.3	3.7	2	4	Z5
BZX84C7V5	7.0	7.9	30	80	6	15	1.2	3.0	4.5	1	5	Z6
BZX84C8V2	7.7	8.7	30	80	6	15	2.5	4.0	5.3	0.7	5	Z7
BZX84C9V1	8.5	9.6	40	80	6	15	3.2	4.6	6.2	0.5	6	Z8
BZX84C10	9.4	10.6	40	100	6	15	3.8	5.5	7.0	0.2	7	Z9
BZX84C11	10.4	11.6	50	150	8	20	4.5	6.4	8.0	0.1	8	Y1
BZX84C12	11.4	12.7	50	150	10	20	5.4	7.4	9.0	0.1	8	Y2
BZX84C13	12.4	14.1	50	150	10	25	6.0	8.4	10.0	0.1	8	Y3
BZX84C15	13.8	15.6	50	170	10	30	7.0	9.4	11.0	0.05	10.5	Y4
BZX84C16	15.3	17.1	50	200	10	30	9.2	11.4	13.0	0.05	11.2	Y5
BZX84C18	16.8	19.1	50	200	10	40	10.4	12.4	14.0	0.05	12.6	Y6
BZX84C20	18.8	21.2	50	225	10	45	12.4	14.4	16.0	0.05	14	Y7
BZX84C22	20.8	23.3	60	225	15	55	14.4	16.4	18.0	0.05	15.4	Y8
BZX84C24	22.8	25.6	60	250	20	55	16.4	18.4	20.0	0.05	16.8	Y9
	@ $I_Z=2\text{mA}$		@ $I_Z=0.5\text{mA}$		@ $I_Z=2\text{mA}$		@ $I_Z=2\text{mA}$					
BZX84C27	25.1	28.9	65	300	25	80	21.4	23.4	25.3	0.05	18.9	Y10
BZX84C30	28.0	32.0	70	300	30	80	24.4	26.6	29.4	0.05	21	Y11
BZX84C33	31.0	35.0	75	325	35	80	27.4	29.7	33.4	0.05	23.1	Y12
BZX84C36	34.0	38.0	80	350	35	90	30.4	33.0	37.4	0.05	25.2	Y13
BZX84C39	37.0	41.0	80	350	40	130	33.4	36.4	41.2	0.05	27.3	Y14
BZX84C43	40.0	46.0	85	375	45	150	37.6	41.2	46.6	0.05	30.1	Y15
BZX84C47	44.0	50.0	85	375	50	170	42.0	46.1	51.8	0.05	32.9	Y16
BZX84C51	48.0	54.0	95	400	60	180	46.6	51.3	57.2	0.05	35.7	Y17
BZX84C56	52.0	60.0	110	425	75	200	52.2	58.4	63.8	0.05	39.2	Y18
BZX84C62	58.0	66.0	130	450	90	215	58.8	63.9	71.6	0.05	43.4	Y19
BZX84C68	64.0	72.0	160	475	110	240	65.6	72.2	79.8	0.05	47.6	Y20
BZX84C75	70.0	79.0	200	500	150	255	73.4	81.1	88.6	0.05	52.5	Y21

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Typical Characteristic Curve 典型特性曲线

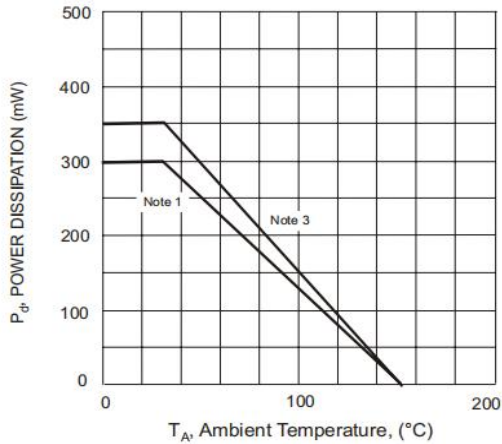


Figure 1: Power Derating Curve

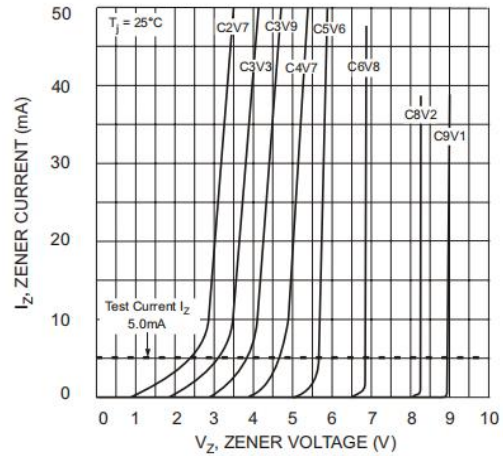


Figure 2: Zener Breakdown Characteristics

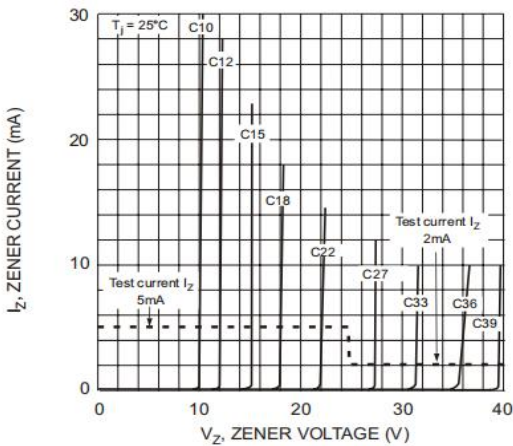


Figure 3: Zener Breakdown Characteristics

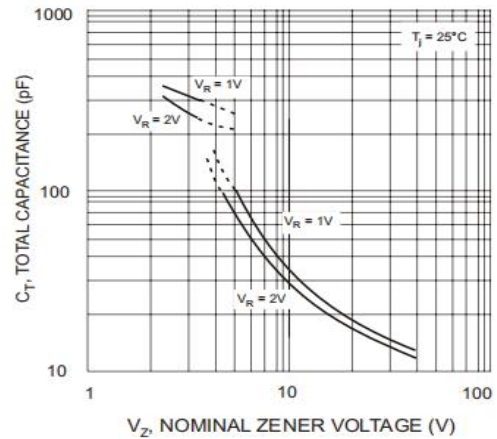


Figure 4: Capacitance Characteristics

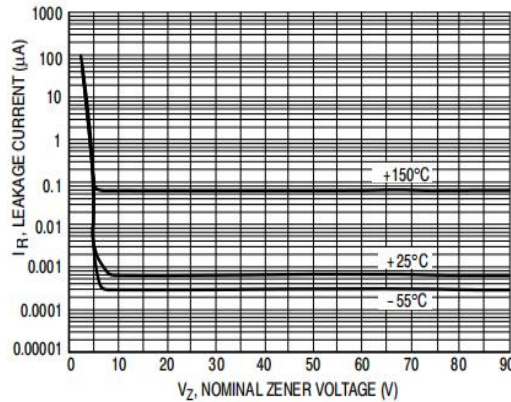


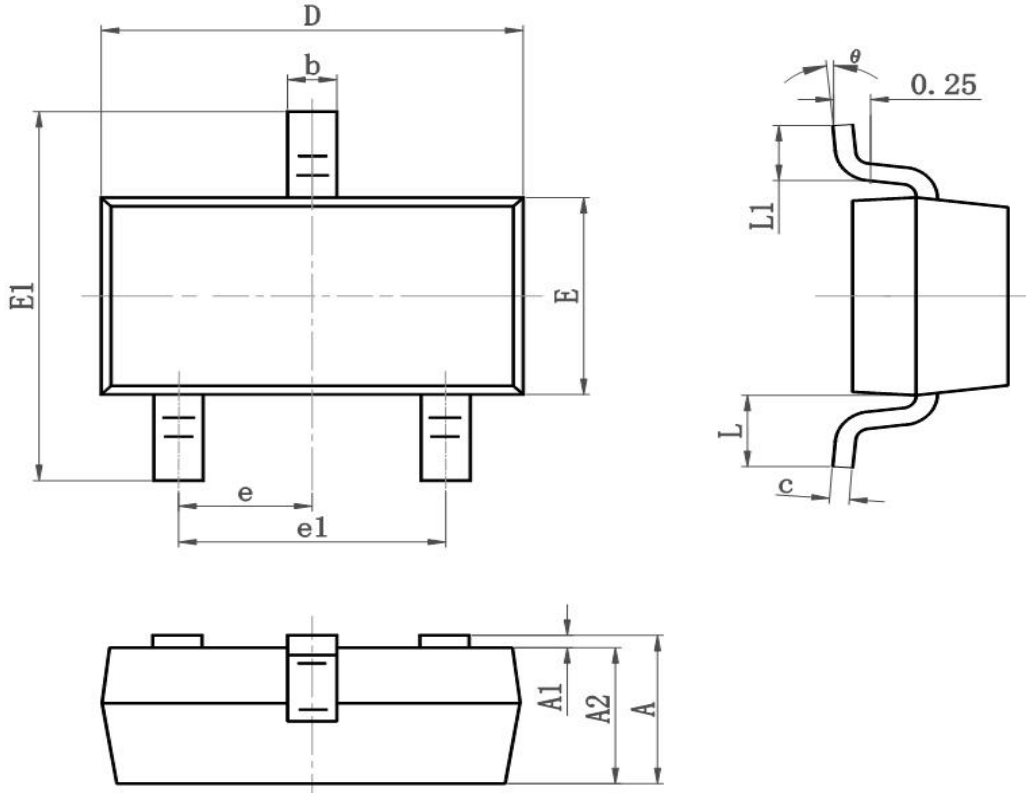
Figure 5: Leakage Current

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■ Dimension 外形封装尺寸



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	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°