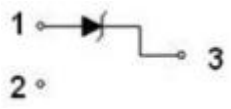
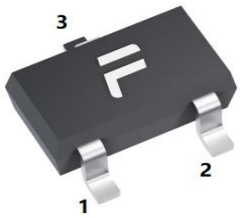
BZX84C51

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

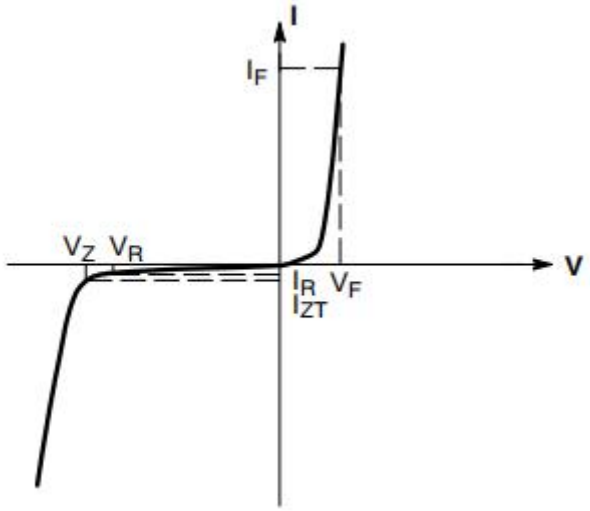
■SOT-23 Internal Configuration 内部结构





■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 (Ta=25℃)	300	mW
Forward Current 正向电流	I_F	250	mA
Forward Voltage 正向电压	V_F (@ I_F=10mA)	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℃,-55to+125℃	



■**Electrical Characteristics 电特性**

(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

Type	V_Z (V)				I_R (μA)		Z_{ZT} (ohm)		Z_{ZK} (ohm)		Marking
	Nom	Min	Max	@Iz(mA)	Max	@V_R(V)	Max	@Iz(mA)	Max	@Iz(mA)	
BZX84C2V4	2.4	2.2	2.6	5	50	1	100	5	600	1.0	Z11
BZX84C2V7	2.7	2.5	2.9	5	20	1	100	5	600	1.0	Z12
BZX84C3V0	3.0	2.8	3.2	5	10	1	95	5	600	1.0	Z13
BZX84C3V3	3.3	3.1	3.5	5	5	1	95	5	600	1.0	Z14
BZX84C3V6	3.6	3.4	3.8	5	5	1	90	5	600	1.0	Z15
BZX84C3V9	3.9	3.7	4.1	5	3	1	90	5	600	1.0	Z16
BZX84C4V3	4.3	4.0	4.6	5	3	1	90	5	600	1.0	Z17
BZX84C4V7	4.7	4.4	5.0	5	3	2	80	5	500	1.0	Z1
BZX84C5V1	5.1	4.8	5.4	5	2	2	60	5	480	1.0	Z2
BZX84C5V6	5.6	5.2	6.0	5	1	2	40	5	400	1.0	Z3
BZX84C6V2	6.2	5.8	6.6	5	3	4	10	5	150	1.0	Z4
BZX84C6V8	6.8	6.4	7.2	5	2	4	15	5	80	1.0	Z5
BZX84C7V5	7.5	7.0	7.9	5	1	5	15	5	80	1.0	Z6
BZX84C8V2	8.2	7.7	8.7	5	0.7	5	15	5	80	1.0	Z7
BZX84C9V1	9.1	8.5	9.6	5	0.5	6	15	5	100	1.0	Z8
BZX84C10	10	9.4	10.6	5	0.2	7	20	5	150	1.0	Z9
BZX84C11	11	10.4	11.6	5	0.1	8	20	5	150	1.0	Y1
BZX84C12	12	11.4	12.7	5	0.1	8	25	5	150	1.0	Y2
BZX84C13	13	12.4	14.1	5	0.1	8	30	5	170	1.0	Y3
BZX84C15	15	13.8	15.6	5	0.05	10.5	30	5	200	1.0	Y4
BZX84C16	16	15.3	17.1	5	0.05	11.2	40	5	200	1.0	Y5
BZX84C18	18	16.8	19.1	5	0.05	12.6	45	5	225	1.0	Y6
BZX84C20	20	18.8	21.2	5	0.05	14.0	55	5	225	1.0	Y7
BZX84C22	22	20.8	23.3	5	0.05	15.4	55	5	250	1.0	Y8
BZX84C24	24	22.8	25.6	5	0.05	16.8	70	5	250	1.0	Y9
BZX84C27	27	25.1	28.9	2	0.05	18.9	80	2	300	0.5	Y10
BZX84C30	30	28.0	32.0	2	0.05	21.0	80	2	300	0.5	Y11
BZX84C33	33	31.0	35.0	2	0.05	23.1	80	2	325	0.5	Y12
BZX84C36	36	34.0	38.0	2	0.05	25.2	90	2	350	0.5	Y13
BZX84C39	39	37.0	41.0	2	0.05	27.3	130	2	350	0.5	Y14
BZX84C43	43	40.0	46.0	2	0.05	30.1	150	2	375	0.5	Y15
BZX84C47	47	44.0	50.0	2	0.05	32.9	170	2	375	0.5	Y16
BZX84C51	51	48.0	54.0	2	0.05	35.7	180	2	400	0.5	Y17
BZX84C56	56	52.0	60.0	2	0.05	39.2	200	2	425	0.5	Y18
BZX84C62	62	58.0	66.0	2	0.05	43.4	215	2	450	0.5	Y19
BZX84C68	68	64.0	72.0	2	0.05	47.6	240	2	475	0.5	Y20
BZX84C75	75	70.0	79.0	2	0.05	52.5	255	2	500	0.5	Y21

■Typical Characteristic Curve 典型特性曲线

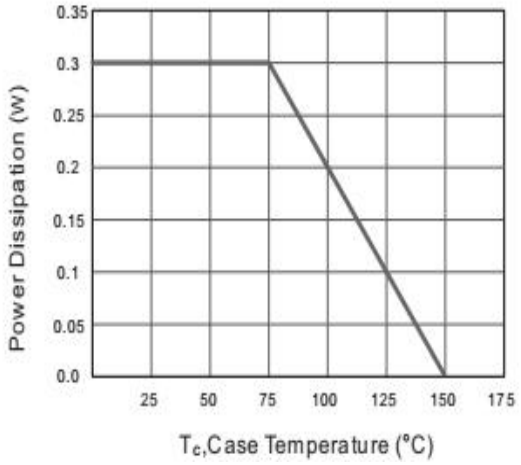


Figure 1: Power Derating Curve

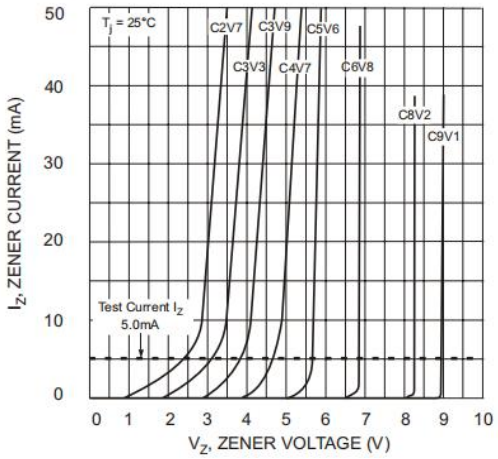


Figure 2: Zener Breakdown Characteristics

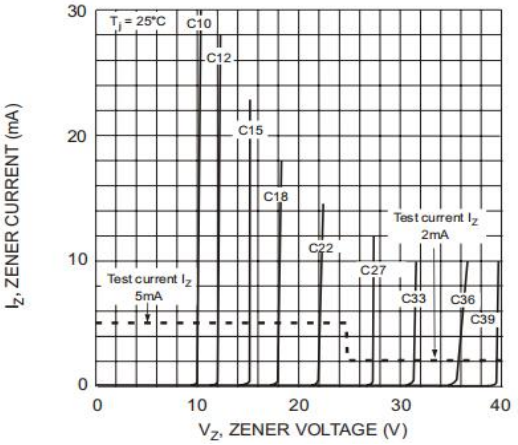


Figure 3: Zener Breakdown Characteristics

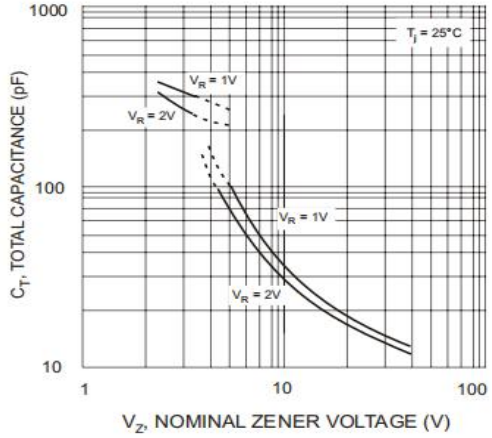


Figure 4: Capacitance Characteristics

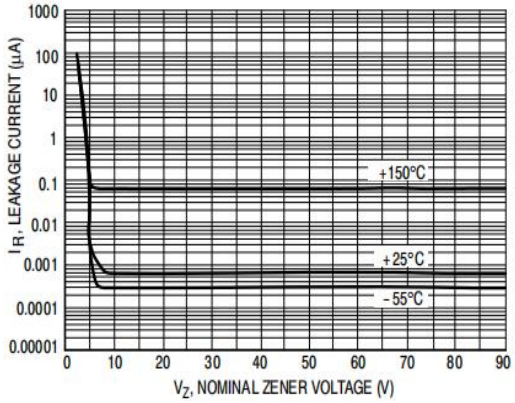
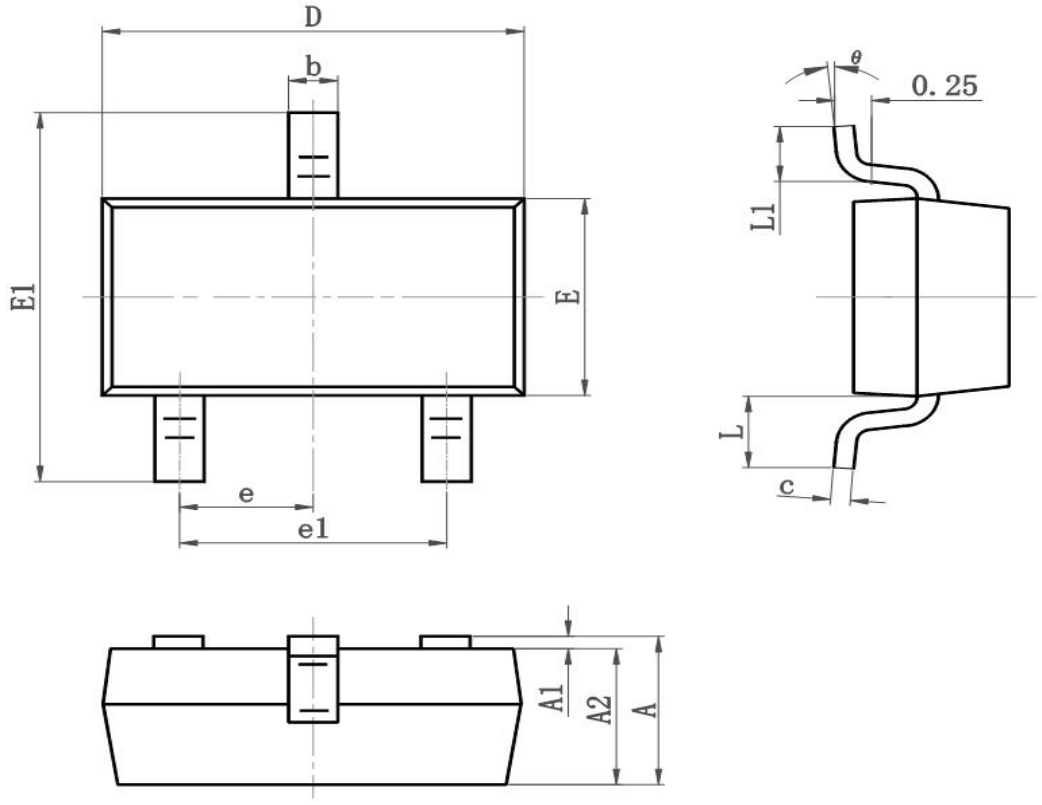


Figure 5: Leakage Current

■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°