



SEMICONDUCTOR
TECHNICAL DATA

BZX84C SERIES

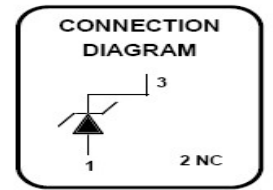
SURFACE MOUNT ZENER DIODE

- * Package Designed for Optimal Automated Board Assembly
- * Zener Breakdown Voltage Range – 2.4V to 39V
- * Pb-Free Package is Available

ABSOLUTE MAXIMUM RATINGS at Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward Voltage at IF = 10 mA	VF	0.9	V
Power Dissipation(Note) Derate Above 25°C	PD	350 1.8	mW mW/ °C
Repetitive Peak Forward Current	IFRM	250	mA
Repetitive Peak Working Current	IZRM	250	mA
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55-150	°C

Package:SOT-23



ELECTRICAL CHARACTERISTICS at Ta=25°C

Type	Vz1(V) at IZT1=5mA			Z _{ZT1} (Ω) at I _{ZT1} =5mA	Z _{ZT2} (Ω) at I _{ZT2} =1mA	Max. reverse leakage current		C(Pf) at V _p =0 f=1 MHz	Marking
	Nom	Min	Max			IR (uA)	VR (V)		
BZX84C2V4	2.4	2.2	2.6	100	275	50	1	450	Z11
BZX84C2V7	2.7	2.5	2.9	100	600	20	1	450	Z12
BZX84C3V3	3.3	3.1	3.5	95	600	5	1	450	Z14
BZX84C3V9	3.9	3.7	4.1	90	600	3	1	450	Z16
BZX84C4V7	4.7	4.4	5.0	80	500	3	2	260	Z1
BZX84C5V1	5.1	4.8	5.4	60	480	2	2	225	Z2
BZX84C6V2	6.2	5.8	6.6	10	150	3	4	185	Z4
BZX84C6V8	6.8	6.4	7.2	15	80	2	4	155	Z5
BZX84C7V5	7.5	7.0	7.9	15	80	1	5	140	Z6
BZX84C9V1	9.1	8.6	9.6	15	100	0.5	6	130	Z8
BZX84C10	10	9.5	10.5	20	150	0.2	7	130	Z9
BZX84C11	11	10.45	11.55	20	150	0.1	8	130	Y1
BZX84C12	12	11.4	12.6	25	150	0.1	8	130	Y2
BZX84C15	15	14.25	15.75	30	200	0.05	10.5	110	Y4
BZX84C16	16	15.2	16.8	40	200	0.05	11.2	105	Y5
BZX84C18	18	17.1	18.9	45	225	0.05	12.6	100	Y6

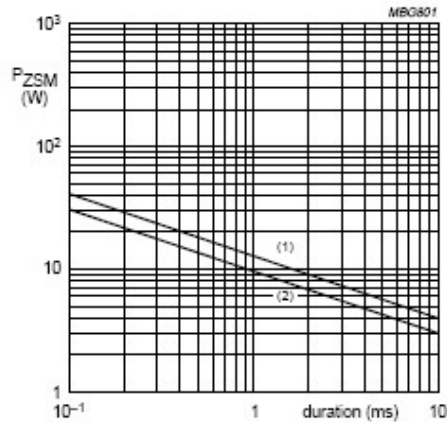
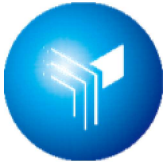


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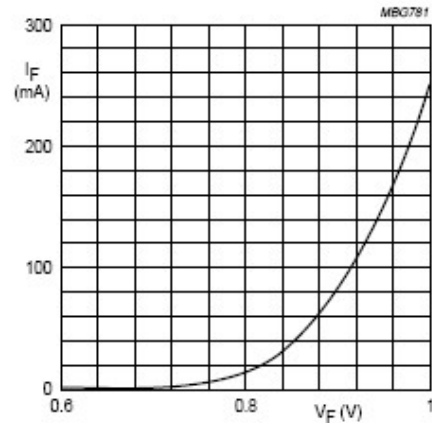
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BZX84C20	20	19	21	55	225	0.05	14	85	Y7
BZX84C22	22	20.9	23.1	55	250	0.05	15.4	85	Y8
BZX84C24	24	22.8	25.2	70	250	0.05	16.8	80	Y9
BZX84C27	27	25.6	28.3	80	300	0.05	18.9	70	Y10
BZX84C30	30	28	32	80	300	0.05	21	70	Y11
BZX84C33	33	31	35	80	325	0.05	23.1	70	Y12
BZX84C36	36	34	38	90	350	0.05	25.2	70	Y13
BZX84C39	39	37	41	130	350	0.05	27.3	45	Y14



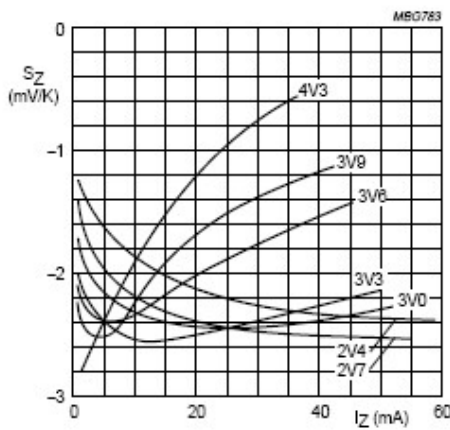
(1) $T_j = 25\text{ }^{\circ}\text{C}$ (prior to surge).
(2) $T_j = 150\text{ }^{\circ}\text{C}$ (prior to surge).

Fig.2 Maximum permissible non-repetitive peak reverse power dissipation versus duration.



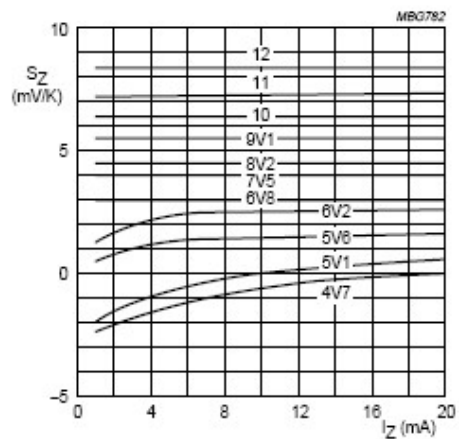
$T_j = 25\text{ }^{\circ}\text{C}$.

Fig.3 Forward current as a function of forward voltage; typical values.



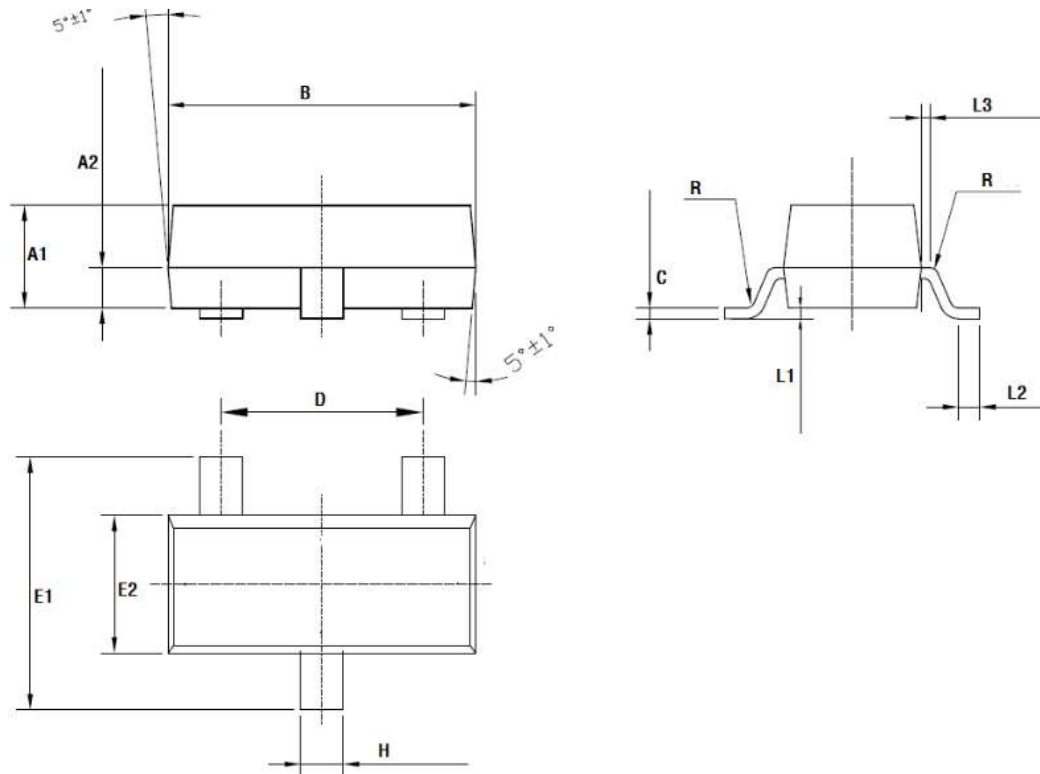
BZX84-A/B/C2V4 to A/B/C4V3.
 $T_j = 25\text{ to }150\text{ }^{\circ}\text{C}$.

Fig.4 Temperature coefficient as a function of working current; typical values.



BZX84-A/B/C4V7 to A/B/C12.
 $T_j = 25\text{ to }150\text{ }^{\circ}\text{C}$.

Fig.5 Temperature coefficient as a function of working current; typical values.



Symbol	Dimensions in Millimeters			内部结构 STYLS	管脚 PIN		
	Min	Nominal	Max		1 脚	2 脚	3 脚
A1	0.900	0.950	1.000	6	基极 BASE	发射极 EMITTER	集电极 COLLCTOR
A2	0.350	0.380	0.410				
B	2.800	2.900	3.000	8	阳极 ANODE	不连接 NO- CONNECTION	阴极 CATHODE
C	0.080	0.100	0.150				
D	1.800	1.900	2.000	9	阳极 ANODE	阳极 ANODE	阴极 CATHODE
E1	2.200	2.400	2.600				
E2	1.200	1.300	1.400	11	阳极 ANODE	阴极 CATHODE	阳极-阴极 ANODE-CATHODE
H	0.300	0.400	0.500				
L1	0.000		0.100	12	阴极 CATHODE	阴极 CATHODE	阳极 ANODE
L2	0.200						
L3	0.030	0.080	0.130	18	不连接 NO- CONNECTION	阴极 CATHODE	阳极 ANODE
R	0.080TYP						
				19	阴极 CATHODE	阳极 ANODE	阴极-阳极 CATHODE-ANODE