SENSITRON
SEMICONDUCTOR

BZX84C2V7-G – BZX84C51-G

350mW SURFACE MOUNT ZENER DIODE

Data Sheet 5204, Rev. –

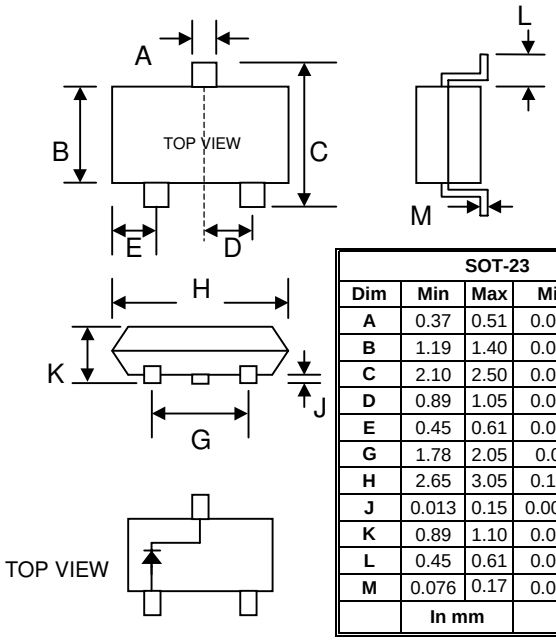
Green Products

Features

- Planar Die Construction
- 350mW Power Dissipation
- 2.4 – 39V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O
- Green Products in Compliance with the RoHS Directive

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Marking: Device Code (See Table Next Page)



SOT-23				
Dim	**Min**	**Max**	**Min**	**Max**
A	0.37	0.51	0.014	0.020
B	1.19	1.40	0.047	0.055
C	2.10	2.50	0.083	0.098
D	0.89	1.05	0.035	0.041
E	0.45	0.61	0.018	0.024
G	1.78	2.05	0.07	0.081
H	2.65	3.05	0.104	0.120
J	0.013	0.15	0.0005	0.006
K	0.89	1.10	0.035	0.043
L	0.45	0.61	0.018	0.024
M	0.076	0.17	0.003	0.007
	In mm		**In inch**	

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at T_A = 25°C (Note 1)	P_d	350	mW
Forward Voltage @ I_F = 10mA	V_F	0.9	V
Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	°C

Note: 1. Valid provided that device terminals are kept at ambient temperature.

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Data Sheet 5204,Rev. -

BZX84C-G – SERIES

350mW	Cross-Reference	Marking Code	Zener Voltage @ Izt	MAX. Dyn. Imped. @ Izt	Test Current	MAX. Dyn. Imped. @Izk	Test Current	Temp. Coeff. @Izt	Rev. Current@ Vr	Test Voltage	Package Reel
Part No.			Vz(V)	Zzt(Ω)	Izt(mA)	Zzk(Ω)	Izk(mA)	avz(%/k)	Ir(μA)	Vr(V)	
BZX84C2V7	MMBZ5223B	Z12	2.5-2.9	100	5.0	600	1.0	-0.065	20.00	1.0	3000
BZX84C3	MMBZ5225B	Z13	2.8-3.2	95		600		-0.060	10.00	1.0	
BZX84C3V3	MMBZ5226B	Z14	3.1-3.5	95		600		-0.055	5.00	1.0	
BZX84C3V6	MMBZ5227B	Z15	3.4-3.8	90		600		-0.055	5.00	1.0	
BZX84C3V9	MMBZ5228B	Z16	3.7-4.1	90		600		-0.050	3.00	1.0	
BZX84C4V3	MMBZ5229B	Z17	4.0-4.6	90		600		-0.035	3.00	1.0	
BZX84C4V7	MMBZ5230B	Z1	4.4-5.0	80		500		-0.015	3.00	2.0	
BZX84C5V1	MMBZ5231B	Z2	4.8-5.4	60		480		+0.005	2.00	2.0	
BZX84C5V6	MMBZ5232B	Z3	5.2-6.0	40		400		+0.020	1.00	2.0	
BZX84C6V2	MMBZ5234B	Z4	5.8-6.6	10		150		+0.030	3.00	4.0	
BZX84C6V8	MMBZ5235B	Z5	6.4-7.2	15		80		+0.045	2.00	4.0	
BZX84C7V5	MMBZ5236B	Z6	7.0-7.9	15		80		+0.050	1.00	5.0	
BZX84C8V2	MMBZ5237B	Z7	7.7-8.7	15		80		+0.055	0.70	5.0	
BZX84C9V1	MMBZ5239B	Z8	8.5-9.6	15		100		+0.065	0.50	6.0	
BZX84C10	MMBZ5240B	Z9	9.4-10.6	20		150		+0.065	0.20	7.0	
BZX84C11	MMBZ5241B	Y1	10.4-11.6	20		150		+0.070	0.10	8.0	
BZX84C12	MMBZ5242B	Y2	11.4-12.7	25		150		+0.075	0.10	8.0	
BZX84C13	MMBZ5243B	Y3	12.4-14.1	30		170		+0.080	0.10	8.0	
BZX84C15	MMBZ5245B	Y4	13.8-15.6	30		200		+0.090	0.05	0.7	
BZX84C16	MMBZ5246B	Y5	15.3-17.1	40		200		+0.090	0.05	0.7	
BZX84C18	MMBZ5248B	Y6	16.8-19.1	45		225		+0.090	0.05	0.7	
BZX84C20	MMBZ5250B	Y7	18.8-21.2	55		225		+0.090	0.05	0.7	
BZX84C22	MMBZ5251B	Y8	20.8-23.3	55		250		+0.090	0.05	0.7	
BZX84C24	MMBZ5252B	Y9	22.8-25.6	70		250		+0.090	0.05	0.7	
BZX84C27	MMBZ5254B	Y10	25.1-28.9	80	2.0	300	0.5	+0.090	0.05	0.7	
BZX84C30	MMBZ5256B	Y11	28-32	80		300		+0.090			
BZX84C33	MMBZ5257B	Y12	31-35	80		325		+0.090			
BZX84C36	MMBZ5258B	Y13	34-38	90		350		+0.090			
BZX84C39	MMBZ5259B	Y14	37-41	130		350		+0.110			
BZX84C43	MMBZ5260B	Y15	40-46	150		375		+0.110			
BZX84C47	MMBZ5261B	Y16	44-50	170		375		+0.110			
BZX84C51	MMBZ5262B	Y17	48-54	180		400		+0.110			

Cases: SOT-23 Molded Plastic

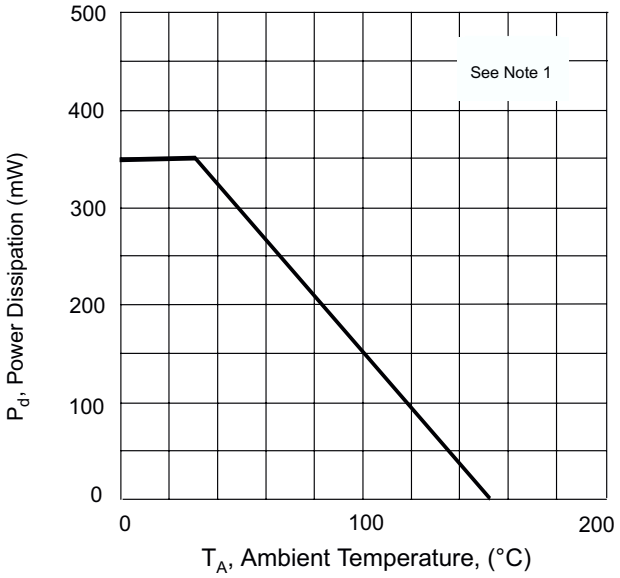

Fig. 1 Power Derating Curve

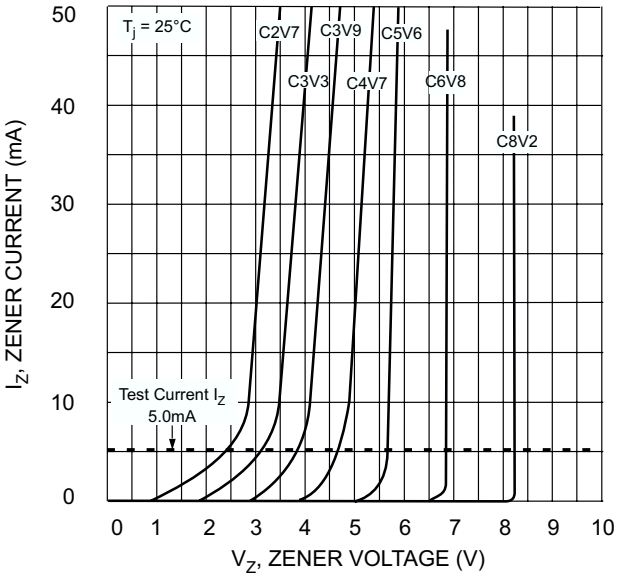

Fig. 2 Zener Breakdown Characteristics

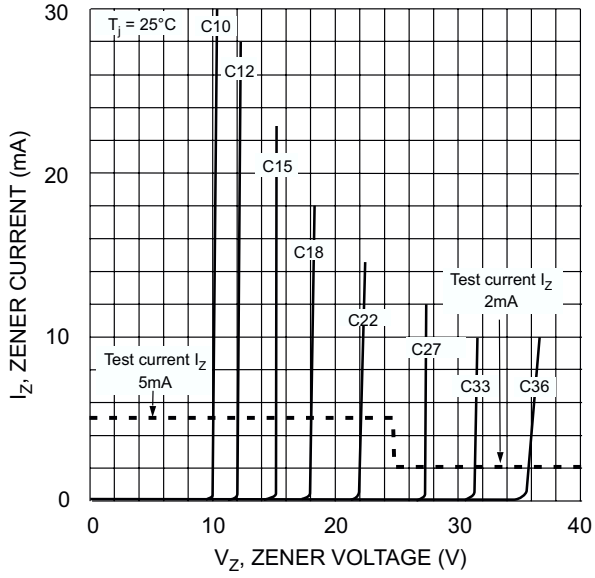

Fig. 3 Zener Breakdown Characteristics

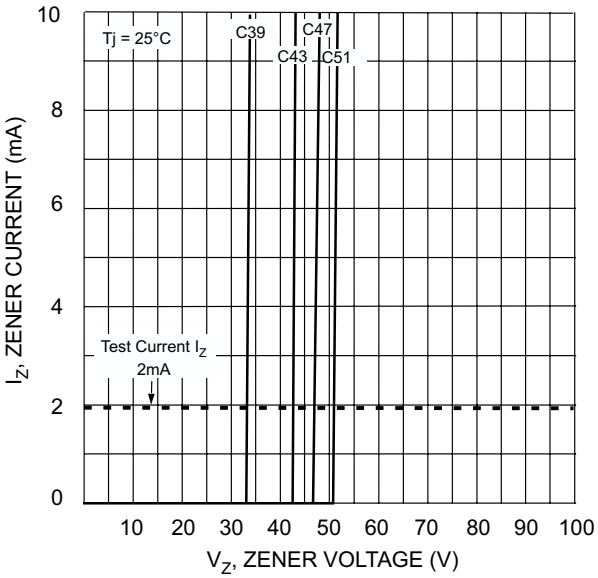

Fig. 4 Zener Breakdown Characteristics

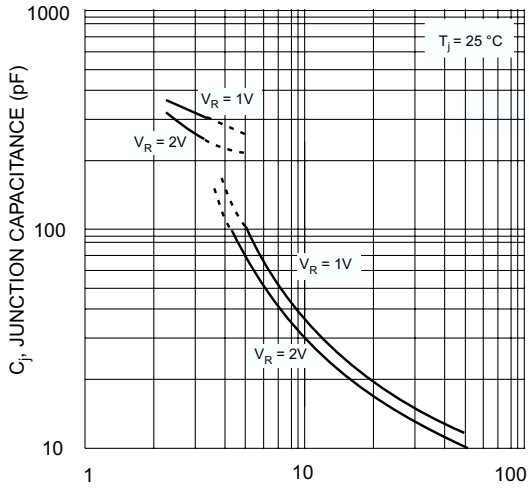

Fig. 5 Junction Capacitance vs Nominal Zener Voltage

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