GOOD-ARK SEMICONDUCTOR

BZX84Cx Series

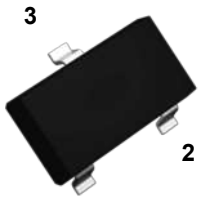
Surface Mount Zener Diodes

Vz Range: 2.4V to 75V Power Dissipation: 350mW

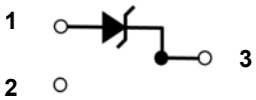
Features

- Total power dissipation: Max. 350 mW
- Working voltage range: Nom. 2.4V to 75V
- Planar die construction
- Small package size

RoHS COMPLIANT



SOT-23



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward Voltage @ I_F=10mA	V_F	0.9	V
Power Dissipation[1]	P_D	350	mW
Thermal Resistance, Junction to Ambient Air[1]	$R_{\theta JA}$	357	°C/W
Operating Junction Temperature Range	T_J	-65 To +150	°C
Storage Temperature Range	T_{STG}	-65 To +150	°C

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

Electrical Characteristics (T_A=25°Cunless otherwise noted)

												Maximum	

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Electrical Characteristics (T_A=25°Cunless otherwise noted)

									m				Maximum	
		□□ □□												□□□□ □

Note:
1. F=1MHz, V_R=0V.
2. I_{ZPM} tested at t_p=100uS, square wave.

Ratings and Characteristic Curves

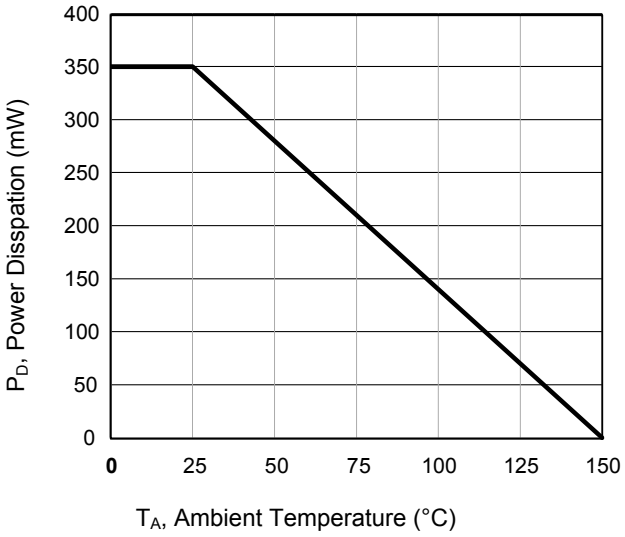

Figure 1. Power Derating Curve

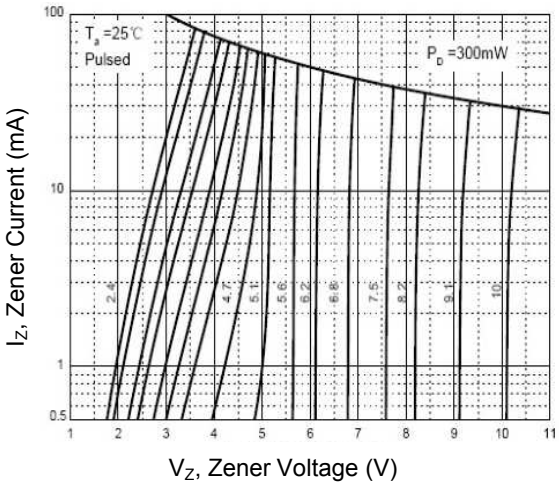

Figure 2. Zener Breakdown Characteristics (V_Z Up to 10V)

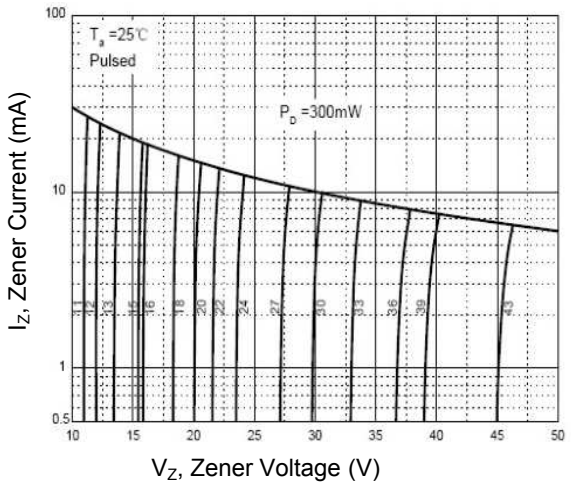

Figure 3. Zener Breakdown Characteristics (V_Z 11V to 43V)

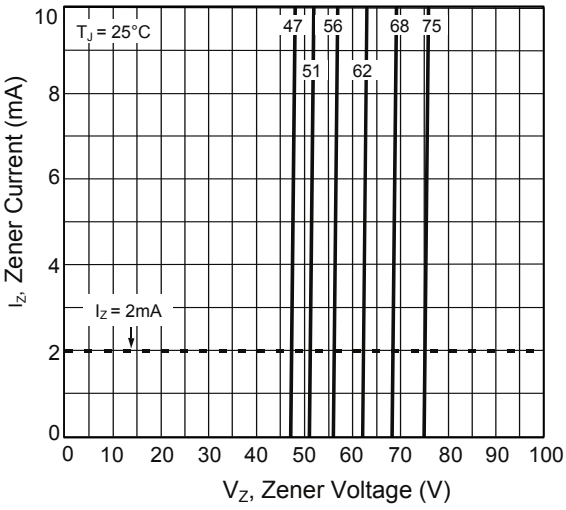

Figure 4. Zener Breakdown Characteristics (V_Z 47V-75V)

Ratings and Characteristic Curves

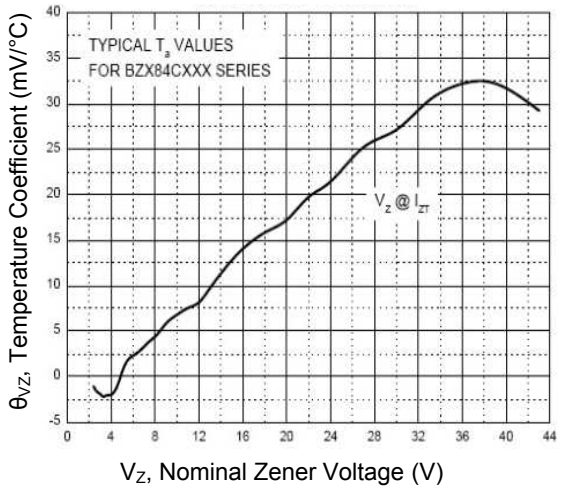

Figure 5. Temperature Coefficients

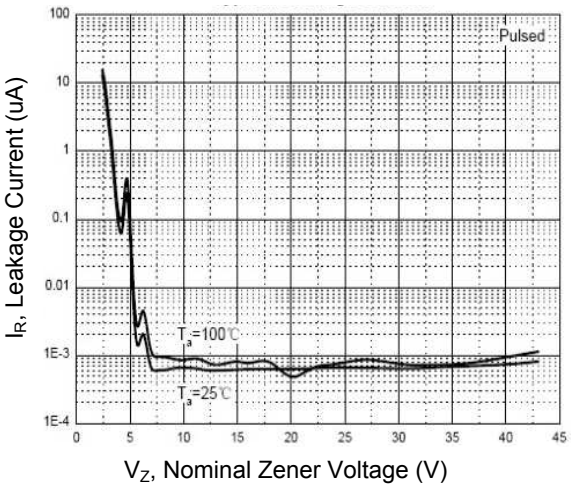

Figure 6. Typical Leakage Current

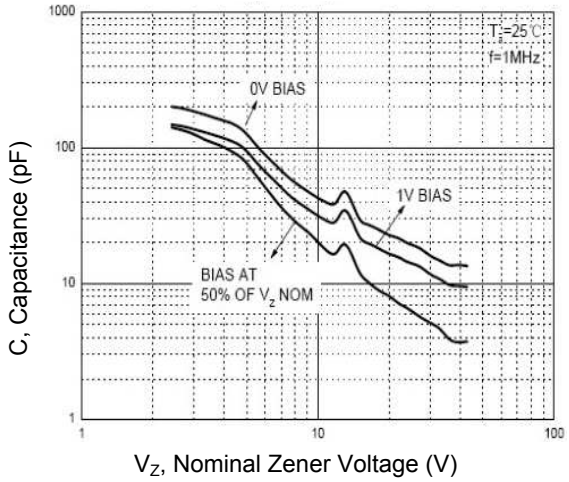

Figure 7. Typical Capacitance

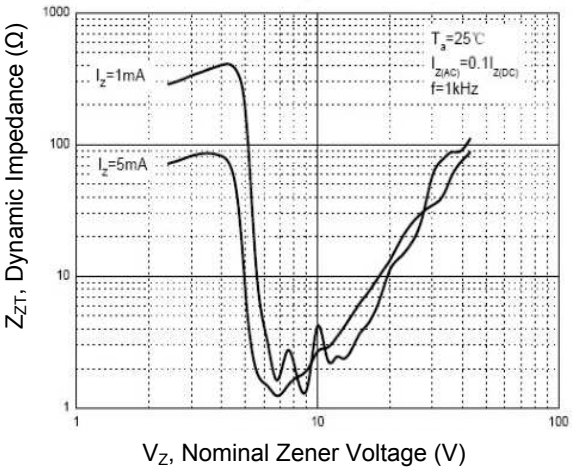

Figure 8. Effect of Zener Voltage on Zener Impedance

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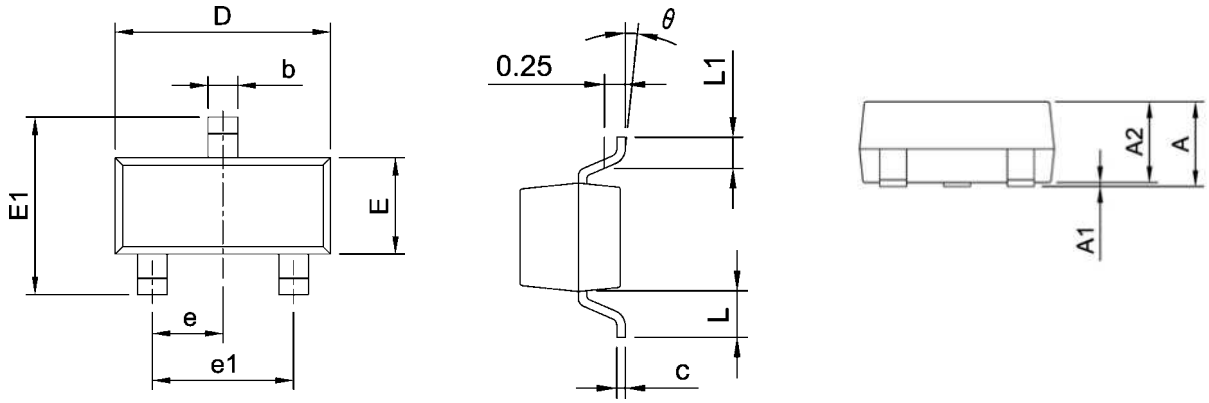
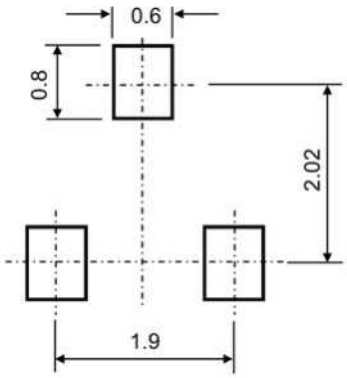
Package Outline Dimensions (SOT-23)



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
θ	0°	8°	0°	8°

Recommended Pad Layout



Note:

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