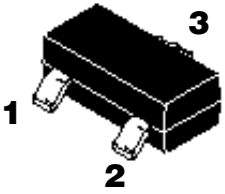
Data Sheet

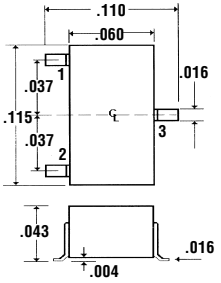
350 mW ZENER DIODES (2.7V to 51V)

BZX84C2V7...51 Series

Description



Mechanical Dimensions



Features

- **5% VOLTAGE TOLERANCE**
- **WIDE VOLTAGE RANGE**
- **MEETS UL SPECIFICATION 94V-0**

Maximum Ratings	BZX84C2V7 . . . 51 Series	Units
DC Power Dissipation ...P_D	350	mW
Forward Voltage @ I_F = 10mA...V_F	0.9	V
Thermal Resistance, Junction to Ambient...$R_{\theta JA}$	420	°C/W
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 150	°C

350 mW ZENER DIODES (2.7V to 51V)

NOTES: 1. V_Z measured @ I_{ZT} using pulse test. Pulse width = 5.0ms. Voltage tolerance is 5%.

Electrical Characteristics @ 25°C.

Part #	Nominal Zener Voltage	Test Current I_{ZT} (mA)	Max. Zener Impedance Z_{ZT} @ I_{ZT} (Ω)	Max. Zener Impedance Z_{ZK} @ I_{ZK} (Ω)	Max. Zener Impedance I_{ZK} mA	Max. Reverse Leakage Current @ V_R I_R (μA)	Max. Reverse Leakage Current @ V_R V_R (V)	Typ. Temp. Coefficient TC (%/°C)	Marking Code
BXZ84C2V7	2.7	5.0	100	600	1.0	20	1.0	-0.065	Z12
BXZ84C3V0	3.0	5.0	100	600	1.0	10	1.0	-0.060	Z13
BXZ84C3V3	3.3	5.0	95	600	1.0	5.0	1.0	-0.055	Z14
BXZ84C3V6	3.6	5.0	95	600	1.0	5.0	1.0	-0.055	Z15
BXZ84C3V9	3.9	5.0	90	600	1.0	3.0	1.0	-0.050	Z16
BXZ84C4V3	4.3	5.0	90	600	1.0	3.0	1.0	-0.035	Z17
BXZ84C4V7	4.7	5.0	80	500	1.0	4.0	2.0	-0.015	Z1
BXZ84C5V1	5.1	5.0	60	480	1.0	2.0	2.0	+0.005	Z2
BXZ84C5V6	5.6	5.0	40	400	1.0	1.0	2.0	+0.020	Z3
BXZ84C6V2	6.2	5.0	10	150	1.0	3.0	4.0	+0.030	Z4
BXZ84C6V8	6.8	5.0	15	80	1.0	2.0	4.0	+0.045	Z5
BXZ84C7V5	7.5	5.0	15	80	1.0	1.0	5.0	+0.050	Z6
BXZ84C8V2	8.2	5.0	15	80	1.0	0.7	5.0	+0.055	Z7
BXZ84C9V1	9.1	5.0	15	100	1.0	0.5	6.0	+0.065	Z8
BXZ84C10	10	5.0	20	150	1.0	0.2	7.0	+0.065	Z9
BXZ84C11	11	5.0	20	150	1.0	0.1	8.0	+0.070	Y1
BXZ84C12	12	5.0	25	150	1.0	0.1	8.0	+0.075	Y2
BXZ84C13	13	5.0	30	170	1.0	0.1	8.0	+0.080	Y3
BXZ84C15	15	5.0	30	200	1.0	0.05	$0.7V_{Znom}$	+0.080	Y4
BXZ84C16	16	5.0	40	200	1.0	0.05	$0.7V_{Znom}$	+0.090	Y5
BXZ84C18	18	5.0	45	225	1.0	0.05	$0.7V_{Znom}$	+0.090	Y6
BXZ84C20	20	5.0	55	225	1.0	0.05	$0.7V_{Znom}$	+0.090	Y7
BXZ84C22	22	5.0	55	250	1.0	0.05	$0.7V_{Znom}$	+0.090	Y8
BXZ84C24	24	5.0	70	250	1.0	0.05	$0.7V_{Znom}$	+0.090	Y9
BXZ84C27	27	2.0	80	300	0.5	0.05	$0.7V_{Znom}$	+0.090	Y10
BXZ84C30	30	2.0	80	300	0.5	0.05	$0.7V_{Znom}$	+0.090	Y11
BXZ84C33	33	2.0	80	325	0.5	0.05	$0.7V_{Znom}$	+0.090	Y12
BXZ84C36	36	2.0	90	350	0.5	0.05	$0.7V_{Znom}$	+0.090	Y13
BXZ84C39	39	2.0	130	350	0.5	0.05	$0.7V_{Znom}$	+0.110	Y14
BXZ84C43	43	2.0	150	375	0.5	0.05	$0.7V_{Znom}$	+0.110	Y15
BXZ84C47	47	2.0	170	375	0.5	0.05	$0.7V_{Znom}$	+0.110	Y16
BXZ84C51	51	2.0	180	400	0.5	0.05	$0.7V_{Znom}$	+0.110	Y17

Rating and characteristic curves (BZX84C2V4 THRU BZX84C75)

FIG.1-STEADY STATE POWER DERTING

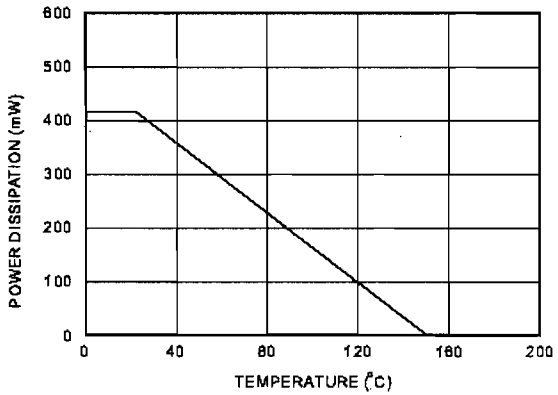


FIG. 2-TEMPERATURE COFFICENTS

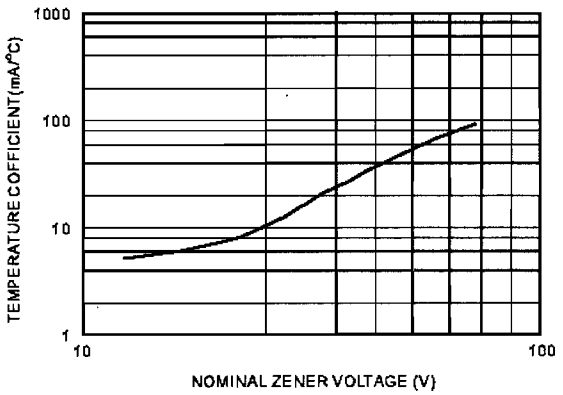


FIG. 3-TYPICAL LEAKAGE CURRENT

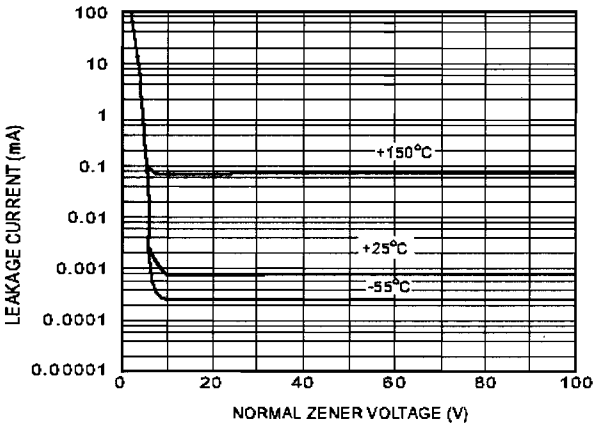


FIG. 4-TYPICAL FORWARD VOLTAGE