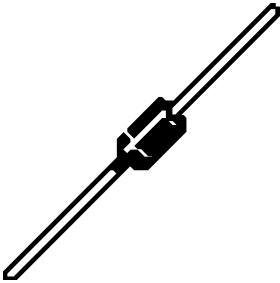


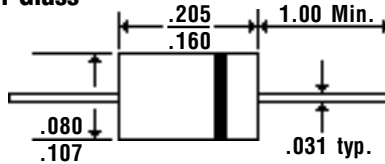
# 1 - 1.3 Watt ZENER DIODES (3.3V to 100V)

## Description



## Mechanical Dimensions

JEDEC  
DO-41 Glass



**BZX85C3V3... 100 Series**

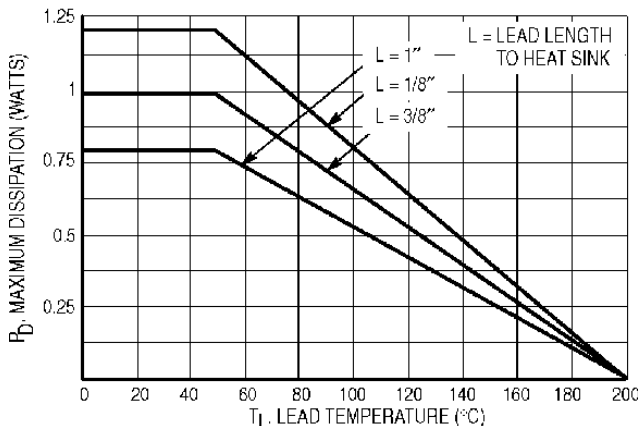
## Features

■ WIDE VOLTAGE RANGE

■ MEETS UL SPECIFICATION 94V-0

Maximum Ratings	BZX85C3V3 . . . 100 Series	Units
DC Power Dissipation @ $T_A = 50^\circ\text{C} \dots P_D$	1.0	W
Derate above $50^\circ\text{C}$	6.67	mW/ $^\circ\text{C}$
Forward Voltage @ $I_F = 200\text{mA} \dots V_F$	1.2	V
Operating & Storage Temperature Range... $T_J, T_{\text{STG}}$	-65 to 200	$^\circ\text{C}$

Power Temperature Derating Curve



**NOTES:**

1. The part numbers have max / min Zener Voltage as listed. Tolerance of 2% is designated by a "B" in place of the "C".
2.  $V_z$  is measured after the test current has been applied for  $40 \pm 10$  ms, while maintaining the lead temp. at  $30^\circ\text{C} \pm 1^\circ\text{C}$ , 3/8" from the diode body.
3. The Zener Impedance is derived from the 1kHz cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc Zener Current ( $I_{ZT}$ ) or ( $I_{ZK}$ ) is superimposed on  $I_{ZT}$  or  $I_{ZK}$ .

**Electrical Characteristics @ 25°C.**

Part #	Zener Voltage (1,2)		Test Current $I_{ZT}$ (mA)	Max. Zener Impedance (3)			Max. Reverse Leakage Current @ $V_R$		Surge Current @ $T_A = 25^\circ\text{C}$ $I_R$ (mA)
	Minimum $V_z$ (V)	Maximum $V_z$ (V)		$Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ @ $I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_R$ (V)	
BZX85C3V3	3.1	3.5	80	20	400	1.0	60	1.0	1380
BZX85C3V6	3.4	3.8	60	15	500	1.0	30	1.0	1260
BZX85C3V9	3.7	4.1	60	15	500	1.0	5.0	1.0	1190
BZX85C4V3	4.0	4.6	50	13	500	1.0	3.0	1.0	1070
BZX85C4V7	4.4	5.0	45	13	600	1.0	3.0	1.5	970
BZX85C5V1	4.8	5.4	45	10	500	1.0	1.0	2.0	890
BZX85C5V6	5.2	6.0	45	7.0	400	1.0	1.0	2.0	810
BZX85C6V2	5.8	6.6	35	4.0	300	1.0	1.0	3.0	730
BZX85C6V8	6.4	7.2	35	3.5	300	1.0	1.0	4.0	660
BZX85C7V5	7.0	7.9	35	3.0	200	0.5	1.0	4.5	605
BZX85C8V2	7.7	8.7	25	5.0	200	0.5	1.0	5.0	550
BZX85C9V1	8.5	9.6	25	5.0	200	0.5	1.0	6.5	500
BZX85C10	9.4	10.6	25	7.0	200	0.5	0.5	7.0	454
BZX85C12	11.4	12.7	20	9.0	350	0.5	0.5	8.4	380
BZX85C13	12.4	14.1	20	10	400	0.5	0.5	9.1	344
BZX85C15	13.8	15.6	15	15	500	0.5	0.5	10.5	304
BZX85C16	15.3	17.1	15	15	500	0.5	0.5	11.0	285
BZX85C18	16.8	19.1	15	20	500	0.5	0.5	12.5	250
BZX85C22	20.8	23.3	10	25	600	0.5	0.5	15.5	205
BZX85C24	22.8	25.6	10	25	600	0.5	0.5	17.0	190
BZX85C27	25.1	28.9	8.0	30	750	0.25	0.5	19.0	170
BZX85C30	28.0	32.0	8.0	30	1000	0.25	0.5	21.0	150
BZX85C33	31.0	35.0	8.0	35	1000	0.25	0.5	23.0	135
BZX85C36	34.0	38.0	8.0	40	1000	0.25	0.5	25.0	125
BZX85C43	40.0	46.0	6.0	50	1000	0.25	0.5	30.0	110
BZX85C47	44.0	50.0	4.0	90	1500	0.25	0.5	33.0	95
BZX85C56	52.0	60.0	4.0	120	2000	0.25	0.5	39.0	80
BZX85C62	58.0	66.0	4.0	125	2000	0.25	0.5	43.0	70
BZX85C75	70.0	80.0	4.0	150	2000	0.25	0.5	51.0	60
BZX85C82	77.0	87.0	2.7	200	3000	0.25	0.5	56.0	55
BZX85C100	96.0	106.0	2.7	350	3000	0.25	0.5	68.0	45