



# Zeners

## BZX85C 3V3 - BZX85C 33

Zeners (BZX85C 3V3 - BZX85C 33)

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

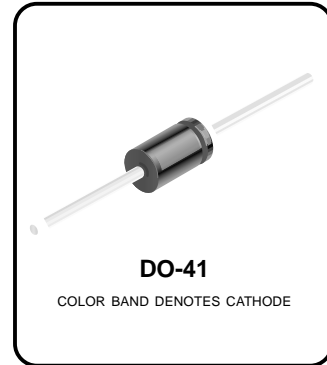
Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	1.3	W
$T_{STG}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	+ 200	$^\circ\text{C}$
	Lead Temperature (1/16" from case for 10 seconds)	+ 230	$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of the diode may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Tolerance: C = 5%



### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

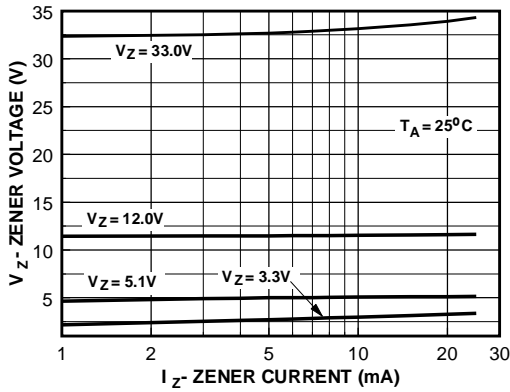
Device	$V_Z(V)$	$Z_Z(\Omega)$ @ $I_Z(mA)$	$Z_{ZK}(\Omega)$ @ $I_{ZK}(mA)$	$I_R(\mu A)$ @ $V_R(V)$	$I_{SURGE}(mA)$	$I_{ZRM}(mA)$
BZX85C 3V3	3.3	20 80	400 1.0	60 1.0	1,380	276
BZX85C 3V6	3.6	15 60	500 1.0	30 1.0	1,260	252
BZX85C 3V9	3.9	15 60	500 1.0	5.0 1.0	1,190	234
BZX85C 4V3	4.3	13 50	500 1.0	3.0 1.0	1,070	217
BZX85C 4V7	4.7	13 45	600 1.0	3.0 1.5	970	193
BZX85C 5V1	5.1	10 45	500 1.0	1.0 2.0	890	178
BZX85C 5V6	5.6	7.0 45	400 1.0	1.0 2.0	810	162
BZX85C 6V2	6.2	4.0 35	300 1.0	1.0 3.0	730	146
BZX85C 6V8	6.8	3.5 35	300 1.0	1.0 4.0	660	133
BZX85C 7V5	7.5	3.0 35	200 1.0	1.0 4.5	605	121
BZX85C 8V2	8.2	5.0 25	200 0.5	1.0 5.0	550	110
BZX85C 9V1	9.1	5.0 25	200 0.5	1.0 6.5	500	100
BZX85C 10	10	7.0 25	200 0.5	0.5 7.0	454	91
BZX85C 11	11	8.0 20	300 0.5	0.5 7.7	414	83
BZX85C 12	12	9.0 20	350 0.5	0.5 8.4	380	76
BZX85C 13	13	10 20	400 0.5	0.5 9.1	344	69
BZX85C 15	15	15 15	500 0.5	0.5 10.5	304	61
BZX85C 16	16	15 15	500 0.5	0.5 11	285	57
BZX85C 18	18	20 15	500 0.5	0.5 12.5	250	50
BZX85C 20	20	24 10	600 0.5	0.5 14	225	45
BZX85C 22	22	25 10	600 0.5	0.5 15.5	205	41
BZX85C 24	24	25 10	600 0.5	0.5 17	190	38
BZX85C 27	27	30 8.0	750 0.25	0.5 19	170	34
BZX85C 30	30	30 8.0	1,000 0.25	0.5 21	150	30
BZX85C 33	33	35 8.0	1,200 0.25	0.5 23	135	27

$V_F$  Forward Voltage = 1.2 V Maximum @  $I_F = 200$  mA for all BZX85 series

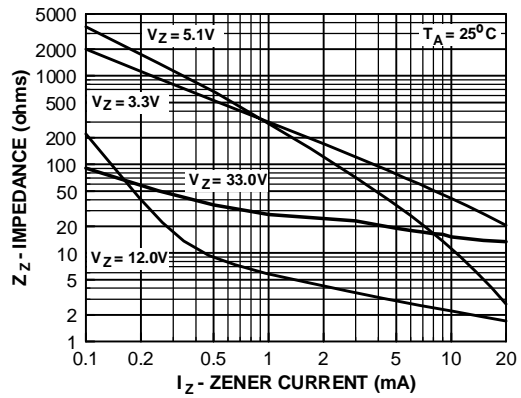
Zeners (BZX85C 3V3 - BZX85C 33)  
(continued)

Zeners (BZX85C 3V3 - BZX85C 33)

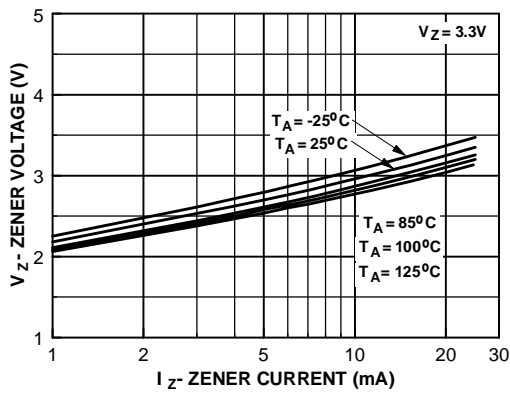
Typical Characteristics



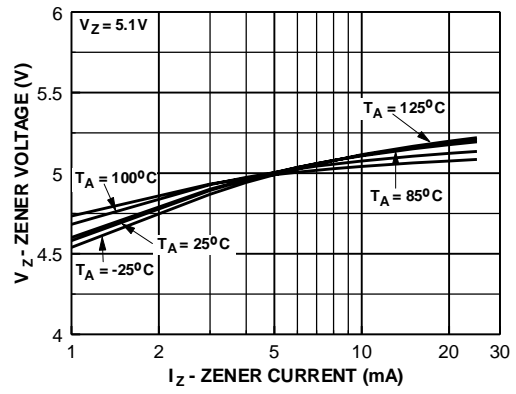
Zener Current vs. Zener Voltage



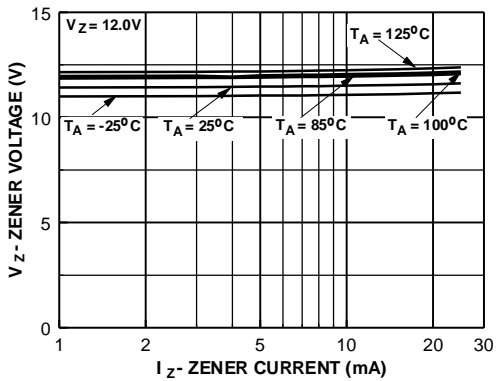
Zener Current vs. Zener Impedance



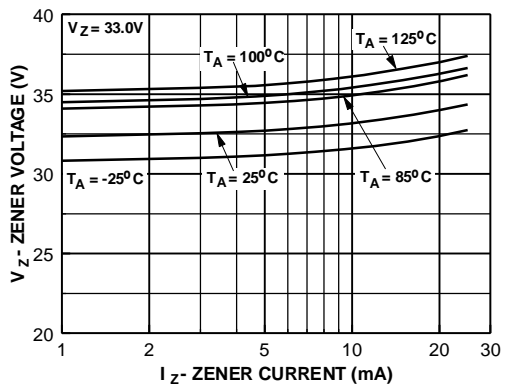
3.3 Zener Voltage vs. Temperature



5.1 Zener Voltage vs. Temperature



12 Zener Voltage vs. Zener Temperature



33 Zener Voltage vs. Zener Temperature

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