FAIRCHILD
SEMICONDUCTOR®

Zeners
BZX55C 3V3 - BZX55C 33

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +200	°C
T_J	Maximum Junction Operating Temperature	+ 200	°C
	Lead Temperature (1/16" from case for 10 seconds)	+ 230	°C
	Surge Power**	30	W

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

**Non-recurrent square wave PW= 8.3 ms, TA= 50 degrees C.

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%



DO-35
COLOR BAND DENOTES CATHODE

Electrical Characteristics

T_A = 25°C unless otherwise noted

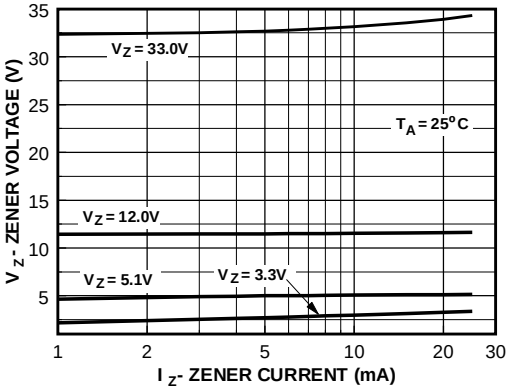
Device	V_Z(V)		$Z_Z(\Omega)$@ I_Z(mA)		$Z_{ZK}(\Omega)$ @I_{ZK}(mA)		$I_{R1}(\mu A)$@V_R(V)		$I_{R2}(\mu A)$@V_R(V) T_A= 150°C		T_C (%/°C)	I_{ZRM} (mA)
	MIN	MAX										
BZX55C 3V3	3.1	3.5	85	5.0	600	1.0	2.0	1.0	40	1.0	- 0.060	115
BZX55C 3V6	3.4	3.8	85	5.0	600	1.0	2.0	1.0	40	1.0	- 0.055	105
BZX55C 3V9	3.7	4.1	85	5.0	600	1.0	2.0	1.0	40	1.0	- 0.050	95
BZX55C 4V3	4.0	4.6	75	5.0	600	1.0	1.0	1.0	20	1.0	- 0.040	90
BZX55C 4V7	4.4	5.0	60	5.0	600	1.0	0.5	1.0	10	1.0	- 0.020	85
BZX55C 5V1	4.8	5.4	35	5.0	550	1.0	0.1	1.0	2.0	1.0	+0.010	80
BZX55C 5V6	5.2	6.0	25	5.0	450	1.0	0.1	1.0	2.0	1.0	+0.025	70
BZX55C 6V2	5.8	6.6	10	5.0	200	1.0	0.1	2.0	2.0	2.0	+0.032	64
BZX55C 6V8	6.4	7.2	8.0	5.0	150	1.0	0.1	3.0	2.0	3.0	+0.040	58
BZX55C 7V5	7.0	7.9	7.0	5.0	50	1.0	0.1	5.0	2.0	5.0	+0.045	53
BZX55C 8V2	7.7	8.7	7.0	5.0	50	1.0	0.1	6.2	2.0	6.2	+0.048	47
BZX55C 9V1	8.5	9.6	10	5.0	50	1.0	0.1	6.8	2.0	6.8	+0.050	43
BZX55C 10	9.4	10.6	15	5.0	70	1.0	0.1	7.5	2.0	7.5	+0.055	40
BZX55C 11	10.4	11.6	20	5.0	70	1.0	0.1	8.2	2.0	8.2	+0.060	36
BZX55C 12	11.4	12.7	20	5.0	90	1.0	0.1	9.1	2.0	9.1	+0.065	32
BZX55C 13	12.4	14.1	26	5.0	110	1.0	0.1	10	2.0	10	0.070	29
BZX55C 15	13.8	15.6	30	5.0	110	1.0	0.1	11	2.0	11	0.070	27
BZX55C 16	15.3	17.1	40	5.0	170	1.0	0.1	12	2.0	12	0.075	24
BZX55C 18	16.8	19.1	50	5.0	170	1.0	0.1	13	2.0	13	0.075	21
BZX55C 20	18.8	21.1	55	5.0	220	1.0	0.1	15	2.0	15	0.080	20
BZX55C 22	20.8	23.3	55	5.0	220	1.0	0.1	16	2.0	16	0.080	18
BZX55C 24	22.8	25.6	80	5.0	220	1.0	0.1	18	2.0	18	0.080	16
BZX55C 27	25.1	28.9	80	5.0	220	1.0	0.1	20	2.0	20	0.085	14
BZX55C 30	28.0	32.0	80	5.0	220	1.0	0.1	22	2.0	22	0.085	13
BZX55C 33	31.0	35.0	80	5.0	220	1.0	0.1	24	2.0	24	0.085	12

V_F Foward Voltage = 1.0 V Maximum @ I_F = 100 mA for all BZX 55 series

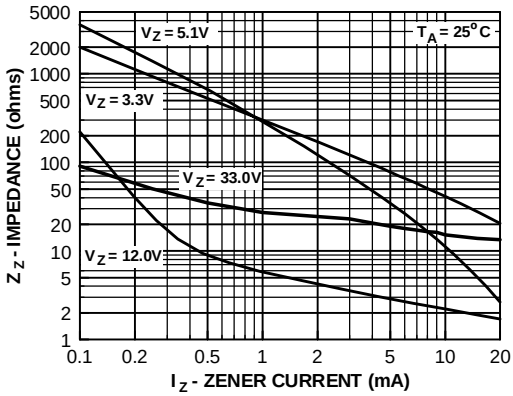
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Zeners (BZX55C 3V3 - BZX55C 33)
(continued)

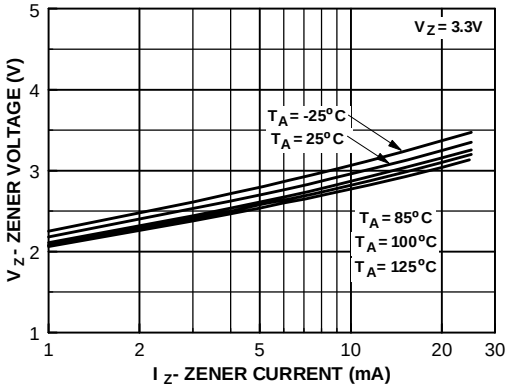
Typical Characteristics



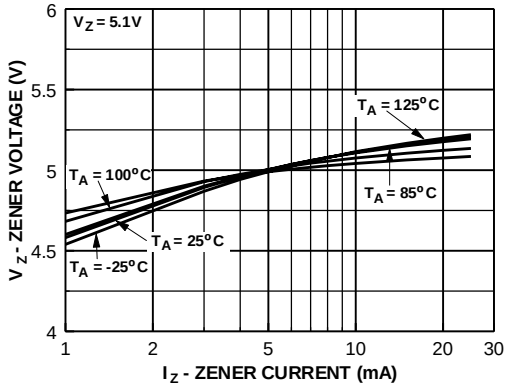
Zener Current vs. Zener Voltage



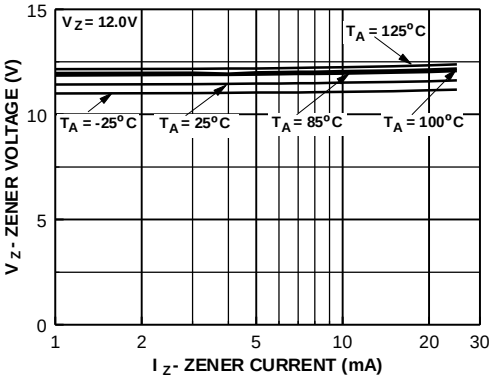
Zener Current vs. Zener Impedence



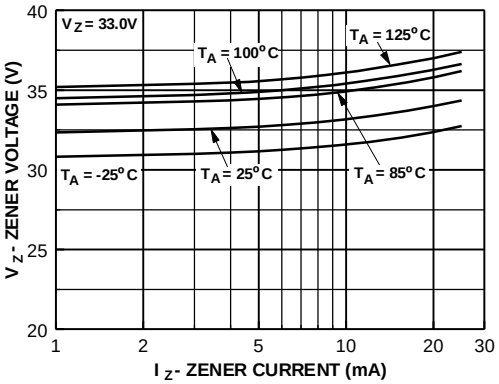
3.3 Zener Voltage vs. Temperature



5.1 Zener Voltage vs. Temperature



12 Zener Voltage vs. Zener Temperature



33 Zener Voltage vs. Zener Temperature

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