FAIRCHILD SEMICONDUCTOR®

June 2007

BZX55C2V4 - BZX55C56
Zener Diodes

Tolerance = 5%



DO-35 Glass case
COLOR BAND DENOTES CATHODE

Absolute Maximum Ratings *

T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation @ TL ≤ 75°C, Lead Length = 3/8”	500	mW
	Derate above 75°C	4.0	mW/°C
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to +200	°C

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

Electrical Characteristics

T_a = 25°C unless otherwise noted

Device	V_Z (V) @ I_Z (Note 1)		Z_Z @ I_Z (Ω)	Test Current I_Z (mA)	I_R (μA) @ V_R			I_{ZM} (mA) (Note 2)
	Min.	Max.			T_a = 25°C	T_a = 125°C	V_R (V)	
BZX55C2V4	2.28	2.56	85	5	50	100	1	155
BZX55C2V7	2.50	2.9	85	5	10	50	1	135
BZX55C3V0	2.8	3.2	85	5	4	40	1	125
BZX55C3V3	3.1	3.5	85	5	2	40	1	115
BZX55C3V6	3.4	3.8	85	5	2	40	1	105
BZX55C3V9	3.7	4.1	85	5	2	40	1	95
BZX55C4V3	4.0	4.6	75	5	1	40	1	90
BZX55C4V7	4.4	5.0	60	5	0.5	10	1	85
BZX55C5V1	4.8	5.4	35	5	0.1	2	1	80
BZX55C5V6	5.2	6.0	25	5	0.1	2	1	70
BZX55C6V2	5.8	6.6	10	5	0.1	2	2	64
BZX55C6V8	6.4	7.2	8	5	0.1	2	3	58
BZX55C7V5	7.0	7.9	7	5	0.1	2	5	53
BZX55C8V2	7.7	8.7	7	5	0.1	2	6	47
BZX55C9V1	8.5	9.6	10	5	0.1	2	7	43
BZX55C10	9.5	10.6	15	5	0.1	2	7.5	40
BZX55C11	10.4	11.6	20	5	0.1	2	8.5	36
BZX55C12	11.4	12.7	20	5	0.1	2	9	32
BZX55C13	12.4	14.1	26	5	0.1	2	10	29
BZX55C15	13.8	15.6	30	5	0.1	2	11	27

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BZX55C16	15.3	17.1	40	5	0.1	2	12	24
BZX55C18	16.8	19.1	50	5	0.1	2	14	21
BZX55C20	18.8	21.1	55	5	0.1	2	15	20
BZX55C22	20.8	23.3	55	5	0.1	2	17	18
BZX55C24	22.8	25.6	80	5	0.1	2	18	16
BZX55C27	25.1	28.9	80	5	0.1	2	20	14
BZX55C30	28.0	32.0	80	5	0.1	2	22	13
BZX55C33	31.0	35.0	80	5	0.1	2	24	12
BZX55C36	34.0	38.0	80	5	0.1	2	27	11
BZX55C39	37.0	41.0	90	2.5	0.1	5	28	10
BZX55C43	40	46	90	2.5	0.1	5	32	9.2
BZX55C47	44	50	110	2.5	0.1	5	35	8.5
BZX55C51	48	54	125	2.5	0.1	10	38	7.8
BZX55C56	52	60	135	2.5	0.1	10	42	7.0
V_F Forward Voltage = 1.3V Max. @ I_F = 100mA								

Notes:

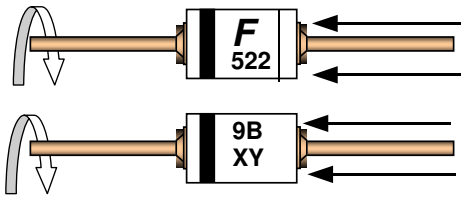
1. Zener Voltage (V_Z)
   The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature (T_L) at 30°C ± 1°C and 3/8" lead length.

2. Maximum Zener Current Ratings (I_{ZM})
   The maximum current handling capability on a worst case basis is limited by the actual zener voltage at the operation point and the power derating curve.

Top Mark Information

Device	Line 1	Line 2	Line 3
BZX55C2V4	LOGO	5C	2V4
BZX55C2V7	LOGO	5C	2V7
BZX55C3V0	LOGO	5C	3V0
BZX55C3V3	LOGO	5C	3V3
BZX55C3V6	LOGO	5C	3V6
BZX55C3V9	LOGO	5C	3V9
BZX55C4V3	LOGO	5C	4V3
BZX55C4V7	LOGO	5C	4V7
BZX55C5V1	LOGO	5C	5V1
BZX55C5V6	LOGO	5C	5V6
BZX55C6V2	LOGO	5C	6V2
BZX55C6V8	LOGO	5C	6V8
BZX55C7V5	LOGO	5C	7V5
BZX55C8V2	LOGO	5C	8V2
BZX55C9V1	LOGO	5C	9V1
BZX55C10	LOGO	5C	10
BZX55C11	LOGO	5C	11
BZX55C12	LOGO	5C	12
BZX55C13	LOGO	5C	13
BZX55C15	LOGO	5C	15
BZX55C16	LOGO	5C	16
BZX55C18	LOGO	5C	18
BZX55C20	LOGO	5C	20
BZX55C22	LOGO	5C	22
BZX55C24	LOGO	5C	24
BZX55C27	LOGO	5C	27
BZX55C30	LOGO	5C	30
BZX55C33	LOGO	5C	33
BZX55C36	LOGO	5C	36
BZX55C39	LOGO	5C	39
BZX55C43	LOGO	5C	43
BZX55C47	LOGO	5C	47
BZX55C51	LOGO	5C	51
BZX55C56	LOGO	5C	56

Top Mark Information (Continued)



1st line: F - Fairchild Logo

2nd line: Device Name - 4th to 5th characters of the device name.
or 5th to 6th characters for BZXyy series

3rd line: Device Name - 6th to 7th characters of the device name.
or Voltage rating for BZXyy series

General Requirements:

1.0 Cathode Band

2.0 First Line: F - Fairchild Logo

3.0 Second Line: Device name - For 1Nxx series: 4th to 5th characters of the device name.
For BZxx series: 5th to 6th characters of the device name.

4.0 Third Line: Device name - For 1Nxx series: 6th to 7th characters of the device name.
For BZXyy series: Voltage rating

5.0 Devices shall be marked as required in the device specification (PID or FSC Test Spec).

6.0 Maximum no. of marking lines: 3

7.0 Maximum no. of digits per line: 2

8.0 FSC logo must be 20 % taller than the alphanumeric marking and should occupy the 2 characters of the specified line.

9.0 Marking Font: Arial (Except FSC Logo)

10.0 First character of each marking line must be aligned vertically.

11.0 All device markings must be based on Fairchild device specification.

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