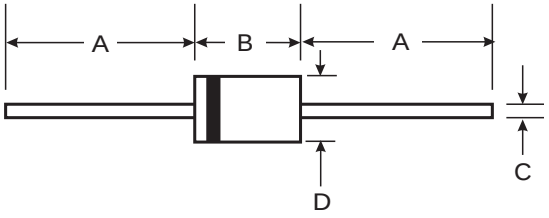
BZX55C2V4 - BZX55C75

SILICON EPITAXIAL PLANAR ZENER DIODE

Features

- Very Sharp Reverse Characteristic
- Low Reverse Current Level
- Very High Stability
- Low Noise



Mechanical Data

- Case: DO-35, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.13 grams

DO-35		
Dim	**Min**	**Max**
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	Test Condition
Power Dissipation	P_d	500	mW	Lead length = 4.0mm, T_L = 25°C
Zener Current	I_Z	P_d/V_Z	mA	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300	K/W	Lead length = 4.0mm, T_L = constant
Forward Voltage	V_F	1.5	V	I_F = 200mA
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175	°C	

Type Number	Nominal Zener Voltage		Zener Voltage Range	Zener Impedance	Zener Impedance		Leakage Current @ V_R			Temperature Coefficient
	V_Z @ I_{ZT}		V_Z @ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZT} @ I_{ZK}		I_R @ T=25°C	I_R @ T=150°C	V_R	
	(V)	(mA)	(V)	(Ω)	(Ω)	(mA)	(μA)	(μA)	(V)	(%/K)
BZX55C2V4	2.4	5.0	2.28 to 2.56	< 85	< 600	1.0	< 50	< 100	1.0	-0.09 to -0.06
BZX55C2V7	2.7	5.0	2.5 to 2.9	< 85	< 600	1.0	< 10	< 50	1.0	-0.09 to -0.06
BZX55C3V0	3.0	5.0	2.8 to 3.2	< 85	< 600	1.0	< 4.0	< 40	1.0	-0.08 to -0.05
BZX55C3V3	3.3	5.0	3.1 to 3.5	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C3V6	3.6	5.0	3.4 to 3.8	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C3V9	3.9	5.0	3.7 to 4.1	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C4V3	4.3	5.0	4.0 to 4.6	< 75	< 600	1.0	< 1.0	< 20	1.0	-0.06 to - 0.03
BZX55C4V7	4.7	5.0	4.4 to 5.0	< 60	< 600	1.0	< 0.5	< 10	1.0	-0.05 to +0.02
BZX55C5V1	5.1	5.0	4.8 to 5.4	< 35	< 550	1.0	< 0.1	< 2.0	1.0	-0.02 to + 0.02
BZX55C5V6	5.6	5.0	5.2 to 6.0	< 25	< 450	1.0	< 0.1	< 2.0	1.0	-0.05 to +0.05
BZX55C6V2	6.2	5.0	5.8 to 6.6	< 10	< 200	1.0	< 0.1	< 2.0	2.0	0.03 to 0.06
BZX55C6V8	6.8	5.0	6.4 to 7.2	< 8.0	< 150	1.0	< 0.1	< 2.0	3.0	0.03 to 0.07
BZX55C7V5	7.5	5.0	7.0 to 7.9	< 7.0	< 50	1.0	< 0.1	< 2.0	5.0	0.03 to 0.07
BZX55C8V2	8.2	5.0	7.7 to 8.7	< 7.0	< 50	1.0	< 0.1	< 2.0	6.2	0.03 to 0.08
BZX55C9V1	9.1	5.0	8.5 to 9.6	< 10	< 50	1.0	< 0.1	< 2.0	6.8	0.03 to 0.09
BZX55C10	10	5.0	9.4 to 10.6	< 15	< 70	1.0	< 0.1	< 2.0	7.5	0.03 to 0.10
BZX55C11	11	5.0	10.4 to 11.6	< 20	< 70	1.0	< 0.1	< 2.0	8.2	0.03 to 0.11
BZX55C12	12	5.0	11.4 to 12.7	< 20	< 90	1.0	< 0.1	< 2.0	9.1	0.03 to 0.11
BZX55C13	13	5.0	12.4 to 14.1	< 26	< 110	1.0	< 0.1	< 2.0	10	0.03 to 0.11
BZX55C15	15	5.0	13.8 to 15.6	< 30	< 110	1.0	< 0.1	< 2.0	11	0.03 to 0.11
BZX55C16	16	5.0	15.3 to 17.1	< 40	< 170	1.0	< 0.1	< 2.0	12	0.03 to 0.11
BZX55C18	18	5.0	16.8 to 19.1	< 50	< 170	1.0	< 0.1	< 2.0	13	0.03 to 0.11
BZX55C20	20	5.0	18.8 to 21.2	< 55	< 220	1.0	< 0.1	< 2.0	15	0.03 to 0.11
BZX55C22	22	5.0	20.8 to 23.3	< 55	< 220	1.0	< 0.1	< 2.0	16	0.04 to 0.12
BZX55C24	24	5.0	22.8 to 25.6	< 80	< 220	1.0	< 0.1	< 2.0	18	0.04 to 0.12
BZX55C27	27	5.0	25.1 to 28.9	< 80	< 220	1.0	< 0.1	< 2.0	20	0.04 to 0.12
BZX55C30	30	5.0	28 to 32	< 80	< 220	1.0	< 0.1	< 2.0	22	0.04 to 0.12
BZX55C33	33	5.0	31 to 35	< 80	< 220	1.0	< 0.1	< 2.0	24	0.04 to 0.12
BZX55C36	36	5.0	34 to 38	< 80	< 220	1.0	< 0.1	< 2.0	27	0.04 to 0.12
BZX55C39	39	2.5	37 to 41	< 90	< 500	0.5	< 0.1	< 5.0	30	0.04 to 0.12
BZX55C43	43	2.5	40 to 46	< 90	< 600	0.5	< 0.1	< 5.0	33	0.04 to 0.12
BZX55C47	47	2.5	44 to 50	< 110	< 700	0.5	< 0.1	< 5	36	0.04 to 0.12
BZX55C51	51	2.5	48 to 54	< 125	< 700	0.5	< 0.1	< 10	39	0.04 to 0.12
BZX55C56	56	2.5	52 to 60	< 135	< 1000	0.5	< 0.1	< 10	43	0.04 to 0.12
BZX55C62	62	2.5	58 to 66	< 150	< 1000	0.5	< 0.1	< 10	47	0.04 to 0.12
BZX55C68	68	2.5	64 to 72	< 200	< 1000	0.5	< 0.1	< 10	51	0.04 to 0.12
BZX55C75	75	2.5	70 to 79	< 250	< 1500	0.5	< 0.1	< 10	56	0.04 to 0.12

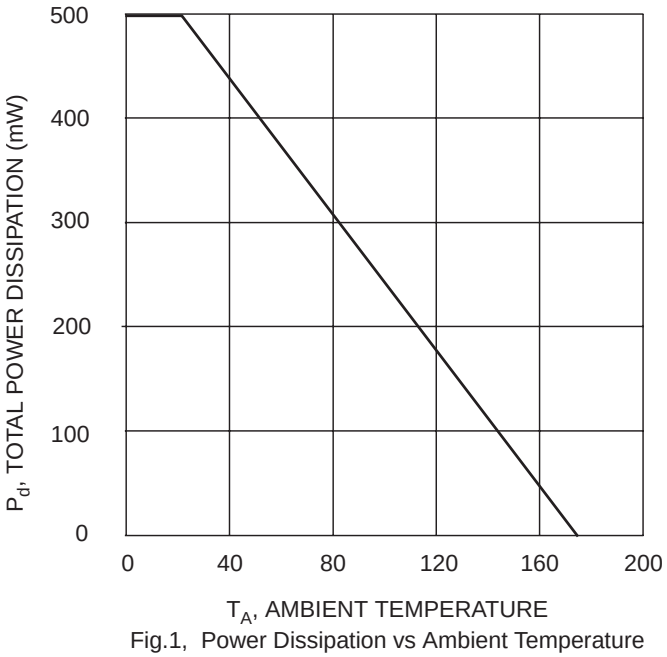


Fig.1, Power Dissipation vs Ambient Temperature

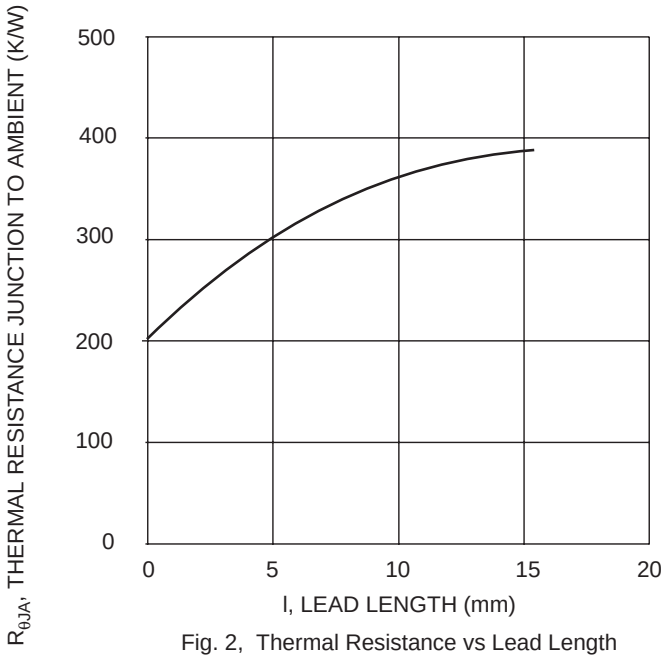


Fig. 2, Thermal Resistance vs Lead Length

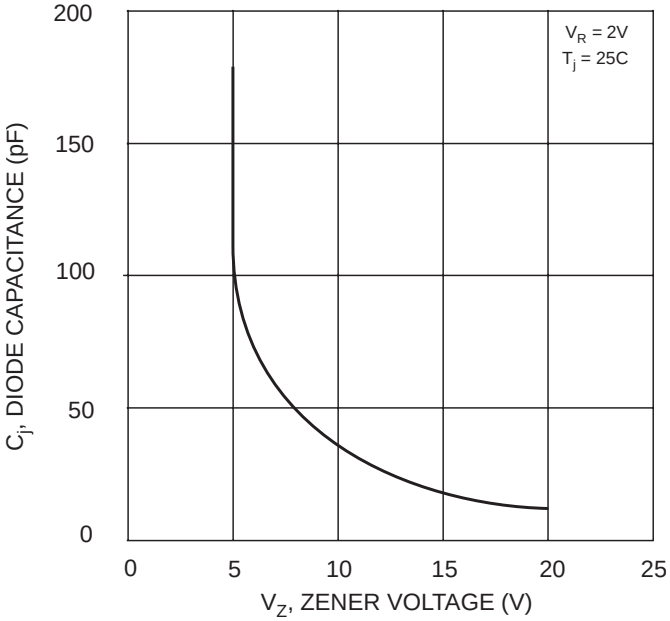


Fig. 3, Diode Capacitance vs Zener Voltage

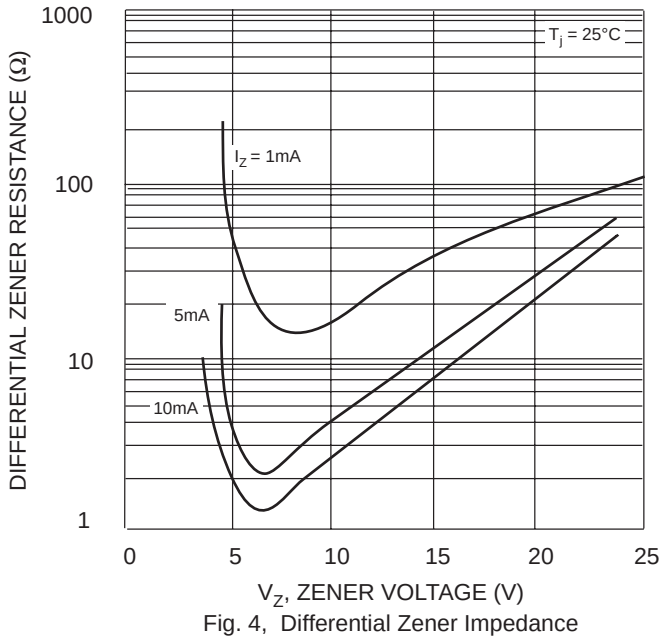


Fig. 4, Differential Zener Impedance