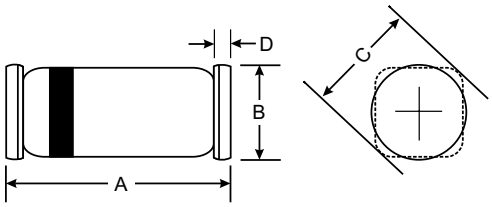
BZT55C2V4 - BZT55C75

500mW SURFACE MOUNT ZENER DIODE

Features

- 500mW Power Dissipation
- High Stability
- Low Noise
- Outline Similar to JEDEC 213AA
- Hemetic Package



QuadroMELF		
Dim	**Min**	**Max**
A	3.3	3.7
B	1.4	1.6
C	1.7∅ Typical	
D	0.3 Typical	
All Dimensions in mm		

Mechanical Data

- Case: QuadroMELF, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Weight: 0.034 grams (approx.)

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

Characteristic		Symbol	Value	Unit
Power Dissipation	(Note 1)	P_d	500	mW
Zener Current	(Note 1)	I_Z	P_d/V_Z	mA
Thermal Resistance, Junction to Ambient Air	(Note 1)	$R_{\theta JA}$	300	K/W
Forward Voltage	@ I_F = 200mA	V_F	1.5	V
Operating and Storage Temperature Range		T_j, T_{STG}	-65 to +175	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature.
2. Tested with pulses, $T_p \leq 100$ms.

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Type Number	Zener Voltage Range (Note 2)			Test Current	Maximum Zener Impedance			Maximum Reverse Current			Typical Temperature Coefficient @ I_{ZT}
	V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ T_A=25°C	I_R @ T_A=150°C	@ V_R	
	Nom (V)	Min (V)	Max (V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(μA)	(V)	(%/K)
BZT55C2V4	2.4	2.28	2.56	5.0	85	600	1.0	50	100	1.0	-0.09 to -0.06
BZT55C2V7	2.7	2.5	2.9	5.0	85	600	1.0	10	50	1.0	-0.09 to -0.06
BZT55C3V0	3.0	2.8	3.2	5.0	90	600	1.0	4.0	40	1.0	-0.08 to -0.05
BZT55C3V3	3.3	3.1	3.5	5.0	90	600	1.0	2.0	40	1.0	-0.08 to -0.05
BZT55C3V6	3.6	3.4	3.8	5.0	90	600	1.0	2.0	40	1.0	-0.08 to -0.05
BZT55C3V9	3.9	3.7	4.1	5.0	90	600	1.0	2.0	40	1.0	-0.08 to -0.05
BZT55C4V3	4.3	4.0	4.6	5.0	90	600	1.0	1.0	20	1.0	-0.06 to - 0.03
BZT55C4V7	4.7	4.4	5.0	5.0	80	600	1.0	0.5	10	1.0	-0.05 to +0.02
BZT55C5V1	5.1	4.8	5.4	5.0	60	550	1.0	0.1	2.0	1.0	-0.02 to + 0.02
BZT55C5V6	5.6	5.2	6.0	5.0	40	450	1.0	0.1	2.0	1.0	-0.05 to +0.05
BZT55C6V2	6.2	5.8	6.6	5.0	10	200	1.0	0.1	2.0	2.0	0.03 to 0.06
BZT55C6V8	6.8	6.4	7.2	5.0	8.0	150	1.0	0.1	2.0	3.0	0.03 to 0.07
BZT55C7V5	7.5	7.0	7.9	5.0	7.0	50	1.0	0.1	2.0	5.0	0.03 to 0.07
BZT55C8V2	8.2	7.7	8.7	5.0	7.0	50	1.0	0.1	2.0	6.2	0.03 to 0.08
BZT55C9V1	9.1	8.5	9.6	5.0	10	50	1.0	0.1	2.0	6.8	0.03 to 0.09
BZT55C10	10	9.4	10.6	5.0	15	70	1.0	0.1	2.0	7.5	0.03 to 0.10
BZT55C11	11	10.4	11.6	5.0	20	70	1.0	0.1	2.0	8.2	0.03 to 0.11
BZT55C12	12	11.4	12.7	5.0	20	90	1.0	0.1	2.0	9.1	0.03 to 0.11
BZT55C13	13	12.4	14.1	5.0	26	110	1.0	0.1	2.0	10	0.03 to 0.11
BZT55C15	15	13.8	15.6	5.0	30	110	1.0	0.1	2.0	11	0.03 to 0.11
BZT55C16	16	15.3	17.1	5.0	40	170	1.0	0.1	2.0	12	0.03 to 0.11
BZT55C18	18	16.8	19.1	5.0	50	170	1.0	0.1	2.0	13	0.03 to 0.11
BZT55C20	20	18.8	21.2	5.0	55	220	1.0	0.1	2.0	15	0.03 to 0.11
BZT55C22	22	20.8	23.3	5.0	55	220	1.0	0.1	2.0	16	0.04 to 0.12
BZT55C24	24	22.8	25.6	5.0	80	220	1.0	0.1	2.0	18	0.04 to 0.12
BZT55C27	27	25.1	28.9	5.0	80	220	1.0	0.1	2.0	20	0.04 to 0.12
BZT55C30	30	28	32	5.0	80	220	1.0	0.1	2.0	22	0.04 to 0.12
BZT55C33	33	31	35	5.0	80	220	1.0	0.1	2.0	24	0.04 to 0.12
BZT55C36	36	34	38	5.0	80	220	1.0	0.1	2.0	27	0.04 to 0.12
BZT55C39	39	37	41	2.5	90	500	0.5	0.1	5.0	30	0.04 to 0.12
BZT55C43	43	40	46	2.5	90	600	0.5	0.1	5.0	33	0.04 to 0.12
BZT55C47	47	44	50	2.5	110	700	0.5	0.1	5.0	36	0.04 to 0.12
BZT55C51	51	48	54	2.5	125	700	0.5	0.1	10	39	0.04 to 0.12
BZT55C56	56	52	60	2.5	135	1000	0.5	0.1	10	43	0.04 to 0.12
BZT55C62	62	58	66	2.5	150	1000	0.5	0.1	10	47	0.04 to 0.12
BZT55C68	68	64	72	2.5	200	1000	0.5	0.1	10	51	0.04 to 0.12
BZT55C75	75	70	79	2.5	250	1500	0.5	0.1	10	56	0.04 to 0.12

Notes: 1. Valid provided that electrodes are kept at ambient temperature.
2. Tested with pulses, $T_p \leq 100$ms.

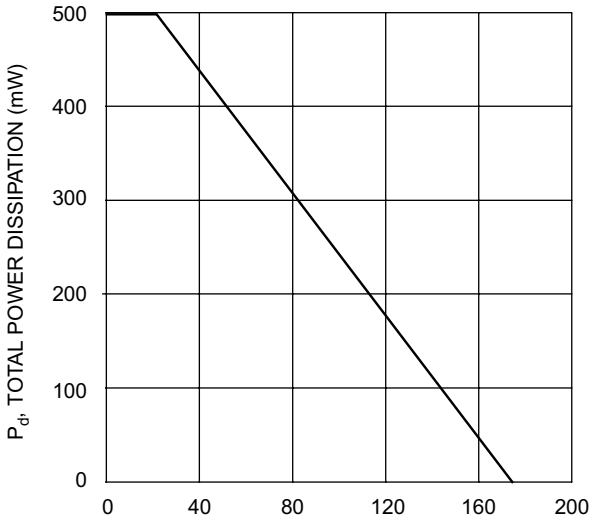


Fig.1 Power Dissipation vs Ambient Temperature

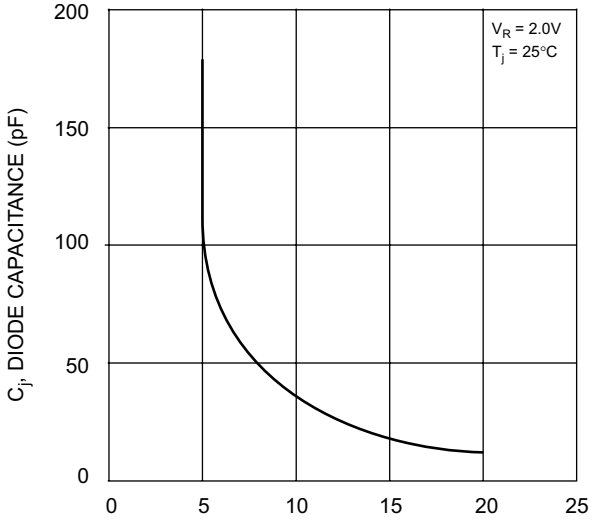


Fig. 2 Diode Capacitance vs Zener Voltage

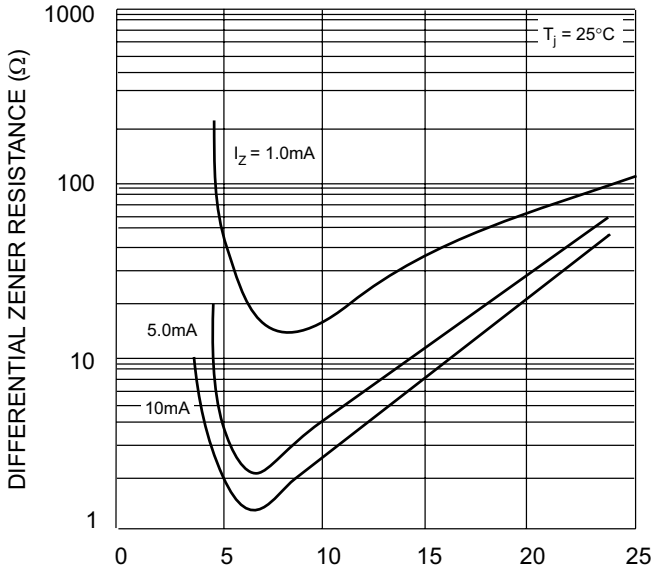


Fig. 3 Differential Zener Impedance

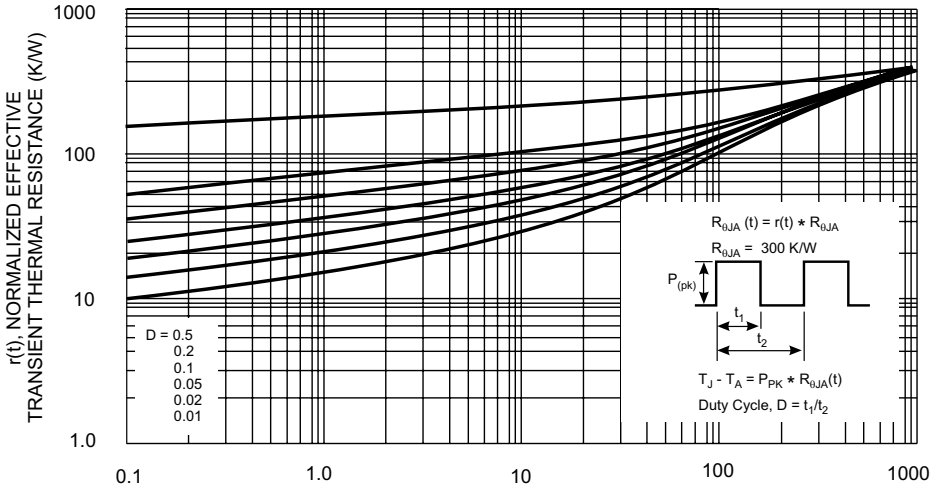


Fig. 4 Typical Normalized Transient Thermal Impedance Curves