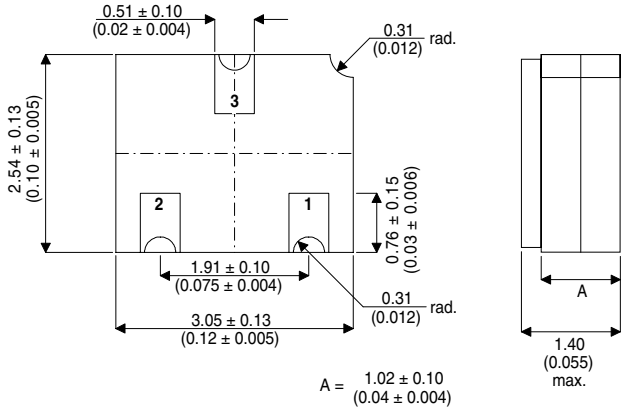
BZX55C Series

MECHANICAL DATA

Dimensions in mm(inches)



LCC1 PACKAGE

Underside View

Pad 1 – Anode Pad 2 – N/C Pad 3 – Cathode

VOLTAGE REGULATOR DIODE IN A CERAMIC SURFACE MOUNT PACKAGE FOR HI–REL APPLICATIONS

FEATURES

- **HERMETIC CERAMIC SURFACE MOUNT PACKAGE (SOT23 COMPATIBLE)**
- **VOLTAGE RANGE 2.4 TO 75V**

ABSOLUTE MAXIMUM RATINGS

P_{TOT}	Power Dissipation	T_{MB} = 25°C	500mW
	Derate above 25°C		4mW/°C
T_{OP}	Maximum Operating Ambient Temperature		–55 to +150°C
T_{STG}	Storage Temperature Range		–65 to +175°C
T_{SOL}	Soldering Temperature	(5 seconds max.)	260°C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient		336°C/W
$R_{\theta J–MB}$	Thermal Resistance Junction to Mounting Base		140°C/W

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V_Z	Zener Voltage	For V_Z nom. ≤ 36V, I_Z = 5mA	V_Z min.	V_Z nom.	V_Z max.	V
		For V_Z nom. ≥ 39V, I_Z = 2.5mA				
I_R	Reverse Current	V_R = V_R test			I_R max.	µA
		V_R = V_R test, T_{AMB} = 150°C			I_R max(2)	
Z_Z	Small Signal Breakdown Impedance	I_Z = I_Z test			Z_Z max.	Ω
Z_K	Small Signal Breakdown Impedance near breakdown knee	For V_Z nom. ≤ 36V, I_{ZK} = 1.0mA			Z_K max.	Ω
		For V_Z nom. ≥ 39V, I_{ZK} = 0.5mA				

See table 1 for type variants and test parameters.

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SEME LAB

BZX55C Series

TABLE 1 – TYPE VARIANTS & TEST PARAMETERS

Product	V_Z nom.	V_Z min.	V_Z max.	I_Z max.	Z_Z max.	V_R test	I_R max.	T_{CVZ}		Z_K max.	I_R max[2]
								min.	max.		
	(V)	(V)	(V)	(mA)	(Ω)	(V)	(μA)	(%/°C)		(Ω)	(μA)
BZX55C2V4	2.4	2.28	2.56	155	100	1.0	50.0	-0.08	-0.06	600	100
BZX55C2V7	2.7	2.5	2.9	135	100	1.0	20.0	-0.08	-0.06	600	50
BZX55C3V0	3.0	2.8	3.2	125	100	1.0	4.00	-0.08	-0.06	600	40
BZX55C3V3	3.3	3.1	3.5	115	100	1.0	3.00	-0.08	-0.05	600	40
BZX55C3V6	3.6	3.4	3.8	105	100	1.0	2.00	-0.08	-0.04	600	40
BZX55C3V9	3.9	3.7	4.1	95	100	1.0	2.00	-0.07	-0.03	600	40
BZX55C4V3	4.3	4.0	4.6	90	75	1.0	1.00	-0.04	-0.01	600	20
BZX55C4V7	4.7	4.4	5.0	85	75	1.0	0.50	-0.03	+0.01	600	10
BZX55C5V1	5.1	4.8	5.4	80	40	1.0	0.15	-0.02	+0.05	550	2.0
BZX55C5V6	5.6	5.2	6.0	70	40	1.0	0.15	-0.01	+0.06	450	2.0
BZX55C6V2	6.2	5.8	6.6	64	10	2.0	0.15	0	+0.07	200	2.0
BZX55C6V8	6.8	6.4	7.2	58	8.0	3.0	0.15	+0.01	+0.08	150	2.0
BZX55C7V5	7.5	7.0	7.9	53	7.0	5.0	0.15	+0.01	+0.09	50	2.0
BZX55C8V2	8.2	7.7	8.7	47	7.0	6.2	0.15	+0.01	+0.09	50	2.0
BZX55C9V1	9.1	8.5	9.6	43	10	6.8	0.15	+0.02	+0.10	50	2.0
BZX55C10	10	9.4	10.6	40	15	7.5	0.15	+0.03	+0.11	70	2.0
BZX55C11	11	10.4	11.6	36	20	8.2	0.15	+0.03	+0.11	70	2.0
BZX55C12	12	11.4	12.7	32	20	9.1	0.15	+0.03	+0.11	90	2.0
BZX55C13	13	12.4	14.1	29	26	10	0.15	+0.03	+0.11	110	2.0
BZX55C15	15	13.8	15.6	27	30	11	0.15	+0.03	+0.11	110	2.0
BZX55C16	16	15.3	17.1	24	40	12	0.15	+0.03	+0.11	170	2.0
BZX55C18	18	16.8	19.1	21	50	13	0.15	+0.03	+0.11	170	2.0
BZX55C20	20	18.8	21.2	20	55	15	0.15	+0.03	+0.11	220	2.0
BZX55C22	22	20.8	23.3	18	55	16	0.15	+0.03	+0.11	220	2.0
BZX55C24	24	22.8	25.6	16	80	18	0.15	+0.04	+0.12	220	2.0
BZX55C27	27	25.1	28.9	14	80	20	0.15	+0.04	+0.12	220	2.0
BZX55C30	30	28	32	13	80	22	0.15	+0.04	+0.12	220	2.0
BZX55C33	33	31	35	12	80	24	0.15	+0.04	+0.12	220	2.0
BZX55C36	36	34	38	11	80	27	0.15	+0.04	+0.12	220	2.0
BZX55C39	39	37	41	10	90	30	0.15	+0.04	+0.12	500	5.0
BZX55C43	43	40	46	9.2	90	33	0.15	+0.04	+0.12	600	5.0
BZX55C47	47	44	50	8.5	110	36	0.15	+0.04	+0.12	700	5.0
BZX55C51	51	48	54	7.8	125	39	0.15	+0.04	+0.12	700	10
BZX55C56	56	52	60	7.0	135	43	0.15	+0.04	+0.12	1000	10
BZX55C62	62	58	66	6.4	150	47	0.15	+0.04	+0.12	1000	10
BZX55C68	68	64	72	5.9	200	51	0.15	+0.04	+0.12	1000	10
BZX55C75	75	70	80	5.3	250	56	0.15	+0.04	+0.12	1500	10

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