

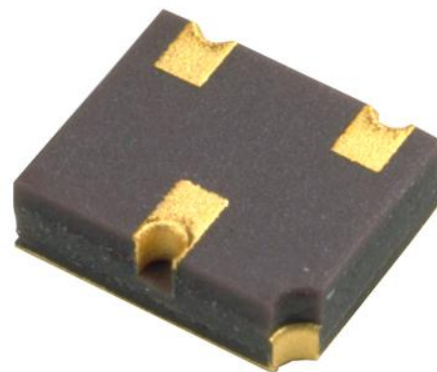
VOLTAGE REGULATOR DIODE



BZX55C Series

Features:

- Voltage Range of 2.4V to 75V
- Hermetic Ceramic Surface Mount Package (LCC1)
- Screening Options Available



Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

P_D	Total Power Dissipation at $T_{MB} = 25^\circ\text{C}$ Derate Above 25°C	500mW
		4mW/ $^\circ\text{C}$
T_j	Operating Junction Temperature Range	-55 to 150°C
T_{stg}	Storage Temperature Range	-65 to 175°C
T_{sol}	Soldering Temperature	260°C

Thermal Properties ($T_A = 25^\circ\text{C}$ unless otherwise noted)

$R_{\theta JMB}$	Thermal Resistance, Junction to Mounting Base	140 $^\circ\text{C}/\text{W}$
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Electrical Specifications

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	TEST CONDITIONS		MIN	TYP	MAX	UNITS
$V_Z^{(2)}$	Zener Voltage	For V_Z nom. $\leq 36\text{V}$ $I_Z = I_Z \text{ test}^{(3)}$		See V_Z in table 1			V
		For V_Z nom. $\geq 39\text{V}$ $I_Z = I_Z \text{ test}^{(3)}$					
$I_R^{(2)}$	Reverse Current	$V_R = V_R \text{ test}$		See I_R in table 1			μA
		$T_A = 150^\circ\text{C}$		See $I_{R(t)}$ in table 1			
$Z_Z^{(2)}$	Small Signal Breakdown Impedance	$I_Z = I_Z \text{ test}^{(3)}$			See Z_Z in table 1		Ω
$Z_K^{(2)}$	Small Signal Breakdown Impedance near breakdown knee	For V_Z nom. $\leq 36\text{V}$ $I_{ZK} = 1.0\text{mA}$		See Z_K in table 1			Ω
		For V_Z nom. $\geq 39\text{V}$ $I_{ZK} = 0.5\text{mA}$					

Notes:

- (1) Pulse test $t_p = 380\mu\text{s}$, $\delta \leq 2\%$
- (2) See table 1 for type variants and test parameters
- (3) $I_Z \text{ test} = 5\text{mA}$ for V_Z nom. $\leq 36\text{V}$. $I_Z \text{ test} = 2.5\text{mA}$ for V_Z nom. $\geq 39\text{V}$

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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Table 1 – Type Variants & Test Parameters

PRODUCT	V _Z (V) ⁽³⁾			I _R (μA)	I _{R(t)} (μA)	Z _Z (Ω)	Z _K (Ω)	I _Z max. (mA)	V _R test (V)	T _{CVZ} (%/°C)	
	MIN	NOM	MAX	MAX	MAX	MAX	MAX			MIN	MAX
BZX55C2V4	2.28	2.4	2.56	50	100	100	600	155	1.0	-0.08	-0.06
BZX55C2V7	2.5	2.7	2.9	20	50	100	600	135	1.0	-0.08	-0.06
BZX55C3V0	2.8	3.0	3.2	4	40	100	600	125	1.0	-0.08	-0.06
BZX55C3V3	3.1	3.3	3.5	3	40	100	600	115	1.0	-0.08	-0.05
BZX55C3V6	3.4	3.6	3.8	2	40	100	600	105	1.0	-0.08	-0.04
BZX55C3V9	3.7	3.9	4.1	2	40	100	600	95	1.0	-0.07	-0.03
BZX55C4V3	4.0	4.3	4.6	1.0	20	75	600	90	1.0	-0.04	-0.01
BZX55C4V7	4.4	4.7	5	0.5	10	75	600	85	1.0	-0.03	+0.01
BZX55C5V1	4.8	5.1	5.4	0.15	2	40	550	80	1.0	-0.02	+0.05
BZX55C5V6	5.2	5.6	6	0.15	2	40	450	70	1.0	-0.01	+0.06
BZX55C6V2	5.8	6.2	6.6	0.15	2	10	200	64	2	0	+0.07
BZX55C6V8	6.4	6.8	7.2	0.15	2	8	150	58	3	+0.01	+0.08
BZX55C7V5	7.0	7.5	7.9	0.15	2	7	50	53	5	+0.01	+0.09
BZX55C8V2	7.7	8.2	8.7	0.15	2	7	50	47	6.2	+0.01	+0.09
BZX55C9V1	8.5	9.1	9.6	0.15	2	10	50	43	6.8	+0.02	+0.1
BZX55C10	9.4	10	10.6	0.15	2	15	70	40	7.5	+0.03	+0.11
BZX55C11	10.4	11	11.6	0.15	2	20	70	36	8.2	+0.03	+0.11
BZX55C12	11.4	12	12.7	0.15	2	20	90	32	9.1	+0.03	+0.11
BZX55C13	12.4	13	14.1	0.15	2	26	110	29	10	+0.03	+0.11
BZX55C15	13.8	15	15.6	0.15	2	30	110	27	11	+0.03	+0.11
BZX55C16	15.3	16	17.1	0.15	2	40	170	24	12	+0.03	+0.11
BZX55C18	16.8	18	19.1	0.15	2	50	170	21	13	+0.03	+0.11
BZX55C20	18.8	20	21.2	0.15	2	55	220	20	15	+0.03	+0.11
BZX55C22	20.8	22	23.3	0.15	2	55	220	18	16	+0.03	+0.11
BZX55C24	22.8	24	25.6	0.15	2	80	220	16	18	+0.04	+0.12
BZX55C27	25.1	27	28.9	0.15	2	80	220	14	20	+0.04	+0.12
BZX55C30	28	30	32	0.15	2	80	220	13	22	+0.04	+0.12
BZX55C33	31	33	35	0.15	2	80	220	12	24	+0.04	+0.12
BZX55C36	34	36	38	0.15	2	80	220	11	27	+0.04	+0.12
BZX55C39	37	39	41	0.15	5	90	500	10	30	+0.04	+0.12
BZX55C43	40	43	46	0.15	5	90	600	9.2	33	+0.04	+0.12
BZX55C47	44	47	50	0.15	5	110	700	8.5	36	+0.04	+0.12
BZX55C51	48	51	54	0.15	10	125	700	7.8	39	+0.04	+0.12
BZX55C56	52	56	60	0.15	10	135	1000	7	43	+0.04	+0.12
BZX55C62	58	62	66	0.15	10	150	1000	6.4	47	+0.04	+0.12
BZX55C68	64	68	72	0.15	10	200	1000	5.9	51	+0.04	+0.12
BZX55C75	70	75	80	0.15	10	250	1500	5.3	56	+0.04	+0.12

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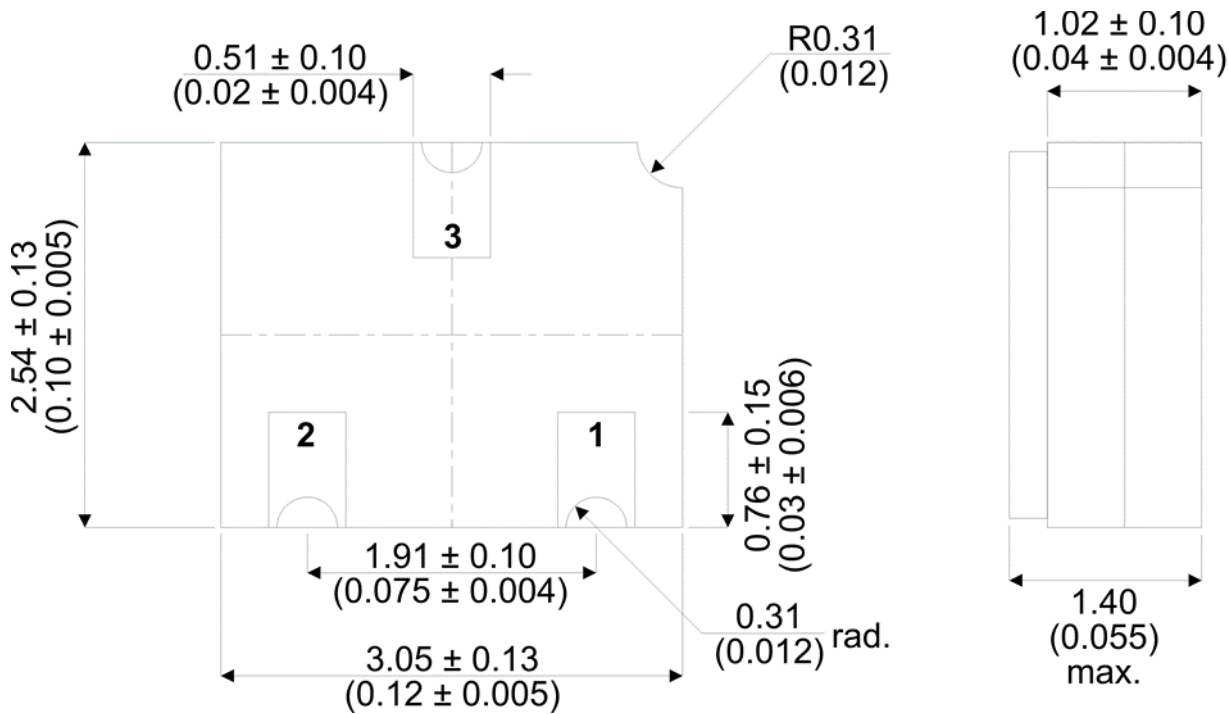
VOLTAGE REGULATOR DIODE

BZX55C Series

Packaging

Mechanical Data

Dimensions in mm (Inches)



LCC1 (DLA UB)
Underside View

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