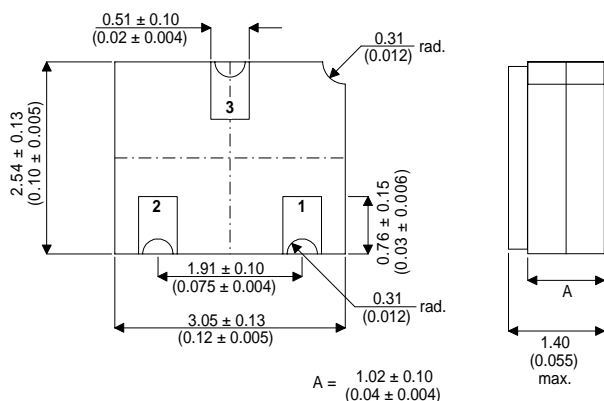


MECHANICAL DATA

Dimensions in mm(inches)



SOT23 CERAMIC (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	$T_{MB} = 25^{\circ}C$	500mW
	Derate above $25^{\circ}C$		4mW/ $^{\circ}C$
T_{OP}	Maximum Operating Ambient Temperature		-55 to $+150^{\circ}C$
T_{STG}	Storage Temperature Range		-65 to $+175^{\circ}C$
T_{SOL}	Soldering Temperature	(5 seconds max.)	$260^{\circ}C$
$R_{\theta JA}$	Thermal Resistance Junction to Ambient		$336^{\circ}C/W$
$R_{\theta J-MB}$	Thermal Resistance Junction to Mounting Base		$140^{\circ}C/W$

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Units
V_Z Zener Voltage	For V_Z nom. $\leq 36V$, $I_Z = 5mA$	V_Z min.	V_Z nom.	V_Z max.	V
	For V_Z nom. $\geq 39V$, $I_Z = 2.5mA$			V_Z max.	
I_R Reverse Current	$V_R = V_R$ test			I_R max.	μA
	$V_R = V_R$ test $T_{AMB} = 150^{\circ}C$			I_R max ⁽²⁾	
Z_Z Small Signal Breakdown Impedance	$I_Z = I_Z$ test			Z_Z max.	Ω
Z_Z Small Signal Breakdown Impedance near breakdown knee	For V_Z nom. $\leq 36V$, $I_{ZK} = 1mA$			Z_K max.	Ω
	For V_Z nom. $\geq 39V$, $I_{ZK} = 0.5mA$				

See table 1 for type variants and test parameters.

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⁾
	(V)	(V)	(V)	(mA)	(Ω)	(V)	(μA)	min. (%/°C)	max. (%/°C)	(Ω)	(μA)
BZX55C2V4	2.4	2.28	2.56	155	85	1.0	50	-0.08	-0.06	600	100
BZX55C2V7	2.7	2.5	2.9	135	85	1.0	10	-0.08	-0.06	600	50
BZX55C3V0	3.0	2.8	3.2	125	85	1.0	4.0	-0.08	-0.06	600	40
BZX55C3V3	3.3	3.1	3.5	115	85	1.0	2.0	-0.08	-0.05	600	40
BZX55C3V6	3.6	3.4	3.8	105	85	1.0	2.0	-0.08	-0.04	600	40
BZX55C3V9	3.9	3.7	4.1	95	85	1.0	2.0	-0.07	-0.03	600	40
BZX55C4V3	4.3	4.0	4.6	90	75	1.0	1.0	-0.04	-0.01	600	20
BZX55C4V7	4.7	4.4	5.0	85	60	1.0	0.5	-0.03	+0.01	600	10
BZX55C5V1	5.1	4.8	5.4	80	35	1.0	0.1	-0.02	+0.05	550	2.0
BZX55C5V6	5.6	5.2	6.0	70	25	1.0	0.1	-0.01	+0.06	450	2.0
BZX55C6V2	6.2	5.8	6.6	64	10	2.0	0.1	0	+0.07	200	2.0
BZX55C6V8	6.8	6.4	7.2	58	8.0	3.0	0.1	+0.01	+0.08	150	2.0
BZX55C7V5	7.5	7.0	7.9	53	7.0	5.0	0.1	+0.01	+0.09	50	2.0
BZX55C8V2	8.2	7.7	8.7	47	7.0	6.2	0.1	+0.01	+0.09	50	2.0
BZX55C9V1	9.1	8.5	9.6	43	10	6.8	0.1	+0.02	+0.10	50	2.0
BZX55C10	10	9.4	10.6	40	15	7.5	0.1	+0.03	+0.11	70	2.0
BZX55C11	11	10.4	11.6	36	20	8.2	0.1	+0.03	+0.11	70	2.0
BZX55C12	12	11.4	12.7	32	20	9.1	0.1	+0.03	+0.11	90	2.0
BZX55C13	13	12.4	14.1	29	26	10	0.1	+0.03	+0.11	110	2.0
BZX55C15	15	13.8	15.6	27	30	11	0.1	+0.03	+0.11	110	2.0
BZX55C16	16	15.3	17.1	24	40	12	0.1	+0.03	+0.11	170	2.0
BZX55C18	18	16.8	19.1	21	50	13	0.1	+0.03	+0.11	170	2.0
BZX55C20	20	18.8	21.2	20	55	15	0.1	+0.03	+0.11	220	2.0
BZX55C22	22	20.8	23.3	18	55	16	0.1	+0.03	+0.11	220	2.0
BZX55C24	24	22.8	25.6	16	80	18	0.1	+0.04	+0.12	220	2.0
BZX55C27	27	25.1	28.9	14	80	20	0.1	+0.04	+0.12	220	2.0
BZX55C30	30	28	32	13	80	22	0.1	+0.04	+0.12	220	2.0
BZX55C33	33	31	35	12	80	24	0.1	+0.04	+0.12	220	2.0
BZX55C36	36	34	38	11	80	27	0.1	+0.04	+0.12	220	2.0
BZX55C39	39	37	41	10	90	30	0.1	+0.04	+0.12	500	5.0
BZX55C43	43	40	46	9.2	90	33	0.1	+0.04	+0.12	600	5.0
BZX55C47	47	44	50	8.5	110	36	0.1	+0.04	+0.12	700	5.0
BZX55C51	51	48	54	7.8	125	39	0.1	+0.04	+0.12	700	10
BZX55C56	56	52	60	7.0	135	43	0.1	+0.04	+0.12	1000	10
BZX55C62	62	58	66	6.4	150	47	0.1	+0.04	+0.12	1000	10
BZX55C68	68	64	72	5.9	200	51	0.1	+0.04	+0.12	1000	10
BZX55C75	75	70	80	5.3	250	56	0.1	+0.04	+0.12	1500	10