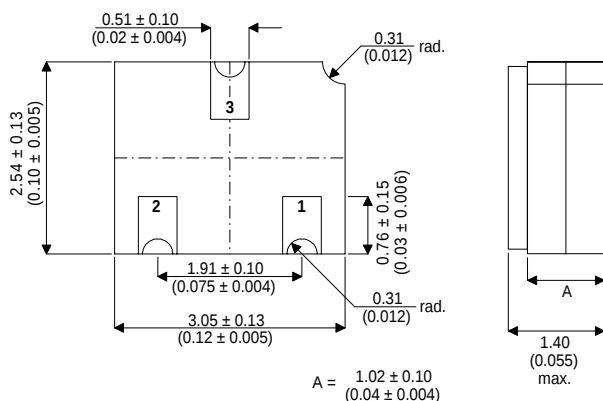


MECHANICAL DATA

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 100V

ABSOLUTE MAXIMUM RATINGS

P_{TOT}	Power Dissipation	$T_{AMB} = 25^{\circ}C$	500mW
	Derate above $25^{\circ}C$		4mW/ $^{\circ}C$
T_J	Maximum Junction Temperature		-65 to $+200^{\circ}C$
T_{STG}	Storage Temperature Range		-65 to $+200^{\circ}C$
T_{SOL}	Soldering Temperature	(5 seconds max.)	$230^{\circ}C$
$R_{\theta JA}$	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. $\leq 24V$, $I_Z = 5mA$	V_Z min.	V_Z nom.	V_Z max.	V
	For V_Z nom. $\geq 27V$, $I_Z = 2mA$				
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	
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. $\leq 24V$, $I_{ZK} = 1mA$			Z_K max.	Ω
	For V_Z nom. $\geq 27V$, $I_{ZK} = 0.5mA$				

See table 1 for type variants and test parameters.

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TABLE 1 – TYPE VARIANTS & TEST PARAMETERS

Product	V _Z nom. (V)	V _Z min. (V)	V _Z max. (V)	I _Z max. (mA)	Z _Z max. (Ω)	V _R test (V)	I _R max. (μA) (25°C)	R _{ZK} max/I _{ZK} max (Ω) (mA)
BZX79C2V4	2.4	2.2	2.6	155	100	1.0	50	600 1.0
BZX79C2V7	2.7	2.5	2.9	135	100	1.0	20	600 1.0
BZX79C3V0	3.0	2.8	3.2	125	95	1.0	10	600 1.0
BZX79C3V3	3.3	3.1	3.5	115	95	1.0	5.0	600 1.0
BZX79C3V6	3.6	3.4	3.8	105	90	1.0	5.0	600 1.0
BZX79C3V9	3.9	3.7	4.1	95	90	1.0	3.0	600 1.0
BZX79C4V3	4.3	4.0	4.6	90	90	1.0	3.0	600 1.0
BZX79C4V7	4.7	4.4	5.0	85	80	2.0	3.0	500 1.0
BZX79C5V1	5.1	4.8	5.4	80	60	2.0	2.0	480 1.0
BZX79C5V6	5.6	5.2	6.0	70	40	2.0	1.0	400 1.0
BZX79C6V2	6.2	5.8	6.6	64	10	4.0	3.0	150 1.0
BZX79C6V8	6.8	6.4	7.2	58	15	4.0	2.0	80 1.0
BZX79C7V5	7.5	7.0	7.9	53	15	5.0	1.0	80 1.0
BZX79C8V2	8.2	7.7	8.7	47	15	5.0	0.7	80 1.0
BZX79C9V1	9.1	8.5	9.6	43	15	6.0	0.5	100 1.0
BZX79C10	10	9.4	10.6	40	20	7.0	0.2	150 1.0
BZX79C11	11	10.4	11.6	36	20	8.0	0.1	150 1.0
BZX79C12	12	11.4	12.7	32	25	8.0	0.1	150 1.0
BZX79C13	13	12.4	14.1	29	30	8.0	0.1	170 1.0
BZX79C15	15	13.8	15.6	27	30	10	0.05	200 1.0
BZX79C16	16	15.3	17.1	24	40	11	0.05	200 1.0
BZX79C18	18	16.8	19.1	21	45	13	0.05	225 1.0
BZX79C20	20	18.8	21.2	20	55	14	0.05	225 1.0
BZX79C22	22	20.8	23.3	18	55	15	0.05	250 1.0
BZX79C24	24	22.8	25.6	16	70	17	0.05	250 1.0
BZX79C27	27	25.1	28.9	14	80	19	0.05	300 0.5
BZX79C30	30	28	32	13	80	21	0.05	300 0.5
BZX79C33	33	31	35	12	80	23	0.05	325 0.5
BZX79C36	36	34	38	11	90	25	0.05	350 0.5
BZX79C39	39	37	41	10	130	27	0.05	350 0.5
BZX79C43	43	40	46	9.2	150	29	0.05	375 0.5
BZX79C47	47	44	50	8.5	170	33	0.05	375 0.5
BZX79C51	51	48	54	7.8	180	36	0.05	400 0.5
BZX79C56	56	52	60	7.0	200	39	0.05	425 0.5
BZX79C62	62	58	66	6.4	215	43	0.05	450 0.5
BZX79C68	68	64	72	5.9	240	48	0.05	475 0.5
BZX79C75	75	70	79	5.3	255	52	0.05	500 0.5
BZX79C82	82	77	87	4.9	280	62	0.05	525 0.5
BZX79C91	91	85	96	4.4	300	69	0.05	550 0.5
BZX79C100	100	94	106	4.0	500	76	0.05	600 0.5

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