



Certificate Number: Q10561

Certificate Number: E17276

## BZV55B Series

$V_Z$  : 2.4 to 75V

$P_D$  : 500mW

### FEATURES :

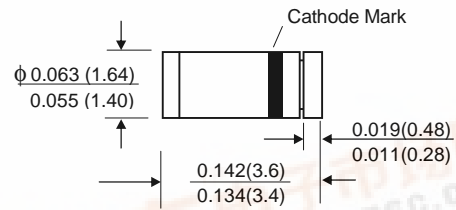
- Silicon planar zener diodes
- For use as low voltage stabilizer or voltage reference.
- Standard zener voltage tolerance is  $\pm 2\%$
- Pb / RoHS Free

### MECHANICAL DATA :

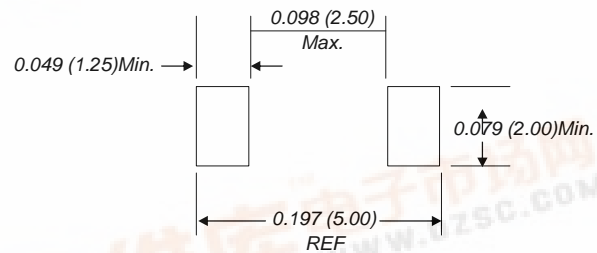
- \* Case : MiniMELF Glass Case (SOD-80C)
- \* Weight : 0.05 gram (approximately)

## ZENER DIODES

### MiniMELF (SOD-80C)



### Mounting Pad Layout



Dimensions in inches and ( millimeters )

## Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at $I_F = 10$ mA.	$V_F$	0.9	V
Power Dissipation at Tflange = 50°C	$P_D$	500	mW
Power Dissipation at $T_a = 50^\circ\text{C}$	$P_D$	400 <sup>(1)</sup>	mW
Continuous Forward Current	$I_F$	250	mA
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	0.38 <sup>(1)</sup>	°C/mW
Thermal Resistance Junction to Lead	$R_{\theta JL}$	0.3	°C/mW
Peak reverse power dissipation (non-repetitive) $t_p = 100\mu\text{s}$	$P_{ZSM}$	30 <sup>(2)</sup>	W
Junction temperature	$T_J$	-65 to +200	°C
Storage temperature range	$T_S$	-65 to +200	°C

Notes: (1) Mounted on ceramic substrate 10mm x 10mm x 0.6mm

(2)  $T_j = 150^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS

(T<sub>a</sub> = 25 °C unless otherwise noted)

Type	Zener Voltage V <sub>Z</sub> @ I <sub>ZT</sub>		Maximum Zener Impedance, f = 1kHz			Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage α <sub>vz</sub> (% / °C)
	Nom <sup>1)</sup> (V)	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> (Ω)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	at V <sub>R</sub> (V)	
BZV55B2V4	2.4	5	100	600	1	50	1	-0.08...-0.06
BZV55B2V7	2.7	5	100	600	1	20	1	-0.08...-0.06
BZV55B3V0	3.0	5	95	600	1	10	1	-0.08...-0.05
BZV55B3V3	3.3	5	95	600	1	5	1	-0.08...-0.05
BZV55B3V6	3.6	5	90	600	1	5	1	-0.08...-0.04
BZV55B3V9	3.9	5	90	600	1	3	1	-0.07...-0.03
BZV55B4V3	4.3	5	90	600	1	3	1	-0.04...-0.01
BZV55B4V7	4.7	5	80	500	1	3	2	-0.03...+0.01
BZV55B5V1	5.1	5	60	480	1	2	2	-0.02...+0.05
BZV55B5V6	5.6	5	40	400	1	1	2	-0.01...+0.06
BZV55B6V2	6.2	5	10	150	1	3	4	0.00...0.07
BZV55B6V8	6.8	5	15	80	1	2	4	0.01...0.08
BZV55B7V5	7.5	5	15	80	1	1	5	0.01...0.09
BZV55B8V2	8.2	5	15	80	1	0.7	5	0.01...0.09
BZV55B9V1	9.1	5	15	100	1	0.5	6	0.02...0.10
BZV55B10	10	5	20	150	1	0.2	7	0.03...0.11
BZV55B11	11	5	20	150	1	0.1	8	0.03...0.11
BZV55B12	12	5	25	150	1	0.1	8	0.03...0.11
BZV55B15	15	5	30	200	1	0.05	10	0.03...0.11
BZV55B16	16	5	40	200	1	0.05	11	0.03...0.11
BZV55B18	18	5	45	225	1	0.05	13	0.03...0.11
BZV55B20	20	5	55	225	1	0.05	14	0.03...0.11
BZV55B22	22	5	55	250	1	0.05	15	0.03...0.11
BZV55B24	24	5	70	250	1	0.05	17	0.04...0.12
BZV55B27	27	2	80	300	0.5	0.05	19	0.04...0.12
BZV55B30	30	2	80	300	0.5	0.05	21	0.04...0.12
BZV55B33	33	2	80	325	0.5	0.05	23	0.04...0.12
BZV55B36	36	2	90	350	0.5	0.05	25	0.04...0.12
BZV55B39	39	2	130	350	0.5	0.05	27	0.04...0.12
BZV55B43	43	2	150	375	0.5	0.05	30	0.04...0.12
BZV55B47	47	2	170	375	0.5	0.05	33	0.04...0.12
BZV55B51	51	2	180	400	0.5	0.05	36	0.04...0.12
BZV55B56	56	2	200	425	0.5	0.05	39	0.1 (typ.)
BZV55B62	62	2	215	450	0.5	0.05	43	0.1 (typ.)
BZV55B68	68	2	240	475	0.5	0.05	48	0.1 (typ.)
BZV55B75	75	2	255	500	0.5	0.05	53	0.1 (typ.)

Note 1) Tested with pulses t<sub>p</sub> = 5 ms

2) Valid Provided that leads are kept at ambient temperature.

3) The type number listed have a standard tolerance on the nominal zener voltage of ± 2.0%.