Certificate Number: Q10561

Certificate Number: E17276

BZV55C Series

ZENER DIODES

V_Z : 2.4 to 75V
P_D : 500mW

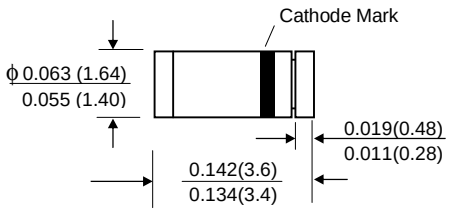
FEATURES :

- Silicon planar zener diodes
- For use as low voltage stabilizer or voltage reference.
- Standard Zener voltage tolerance is ± 5%
- Pb / RoHS Free

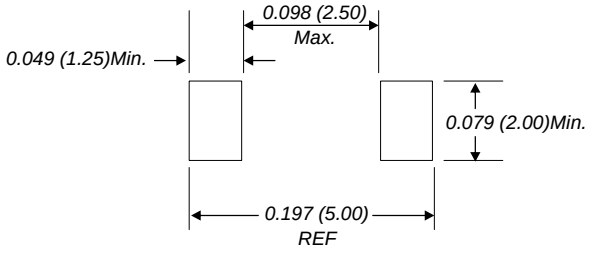
MECHANICAL DATA :

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

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 Ta = 50°C	P_D	400 [1)]	mW
Continuous Forward Current	I_F	250	mA
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	0.38[(1)]	°C/mW
Thermal Resistance Junction to Lead	$R_{\theta JL}$	0.3	°C/mW
Peak reverse power dissipation (non-repetitive) tp = 100µs	P_{ZSM}	30[(2)]	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) Tj = 150°C

ELECTRICAL CHARACTERISTICS

(Ta = 25 °C unless otherwise noted)

Type	Zener Voltage V_Z @ I_{ZT}		Maximum Zener Impedance , f = 1kHz			Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage
	Nom[1] (V)	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω)	Z_{ZK} @ I_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	at V_R (V)	α_{vz}(% / °C)
BZV55C2V4	2.4	5	100	600	1	50	1	-0.08...-0.06
BZV55C2V7	2.7	5	100	600	1	20	1	-0.08...-0.06
BZV55C3V0	3.0	5	95	600	1	10	1	-0.08...-0.05
BZV55C3V3	3.3	5	95	600	1	5	1	-0.08...-0.05
BZV55C3V6	3.6	5	90	600	1	5	1	-0.08...-0.04
BZV55C3V9	3.9	5	90	600	1	3	1	-0.07...-0.03
BZV55C4V3	4.3	5	90	600	1	3	1	-0.04...-0.01
BZV55C4V7	4.7	5	80	500	1	3	2	-0.03...+0.01
BZV55C5V1	5.1	5	60	480	1	2	2	-0.02...+0.05
BZV55C5V6	5.6	5	40	400	1	1	2	-0.01...+0.06
BZV55C6V2	6.2	5	10	150	1	3	4	0.00...0.07
BZV55C6V8	6.8	5	15	80	1	2	4	0.01...0.08
BZV55C7V5	7.5	5	15	80	1	1	5	0.01...0.09
BZV55C8V2	8.2	5	15	80	1	0.7	5	0.01...0.09
BZV55C9V1	9.1	5	15	100	1	0.5	6	0.02...0.10
BZV55C10	10	5	20	150	1	0.2	7	0.03...0.11
BZV55C11	11	5	20	150	1	0.1	8	0.03...0.11
BZV55C12	12	5	25	150	1	0.1	8	0.03...0.11
BZV55C13	13	5	30	170	1	0.1	8	0.03...0.11
BZV55C15	15	5	30	200	1	0.05	10	0.03...0.11
BZV55C16	16	5	40	200	1	0.05	11	0.03...0.11
BZV55C18	18	5	45	225	1	0.05	13	0.03...0.11
BZV55C20	20	5	55	225	1	0.05	14	0.03...0.11
BZV55C22	22	5	55	250	1	0.05	15	0.03...0.11
BZV55C24	24	5	70	250	1	0.05	17	0.04...0.12
BZV55C27	27	2	80	300	0.5	0.05	19	0.04...0.12
BZV55C30	30	2	80	300	0.5	0.05	21	0.04...0.12
BZV55C33	33	2	80	325	0.5	0.05	23	0.04...0.12
BZV55C36	36	2	90	350	0.5	0.05	25	0.04...0.12
BZV55C39	39	2	130	350	0.5	0.05	27	0.04...0.12
BZV55C43	43	2	150	375	0.5	0.05	30	0.04...0.12
BZV55C47	47	2	170	375	0.5	0.05	33	0.04...0.12
BZV55C51	51	2	180	400	0.5	0.05	36	0.04...0.12
BZV55C56	56	2	200	425	0.5	0.05	39	0.1 (typ.)
BZV55C62	62	2	215	450	0.5	0.05	43	0.1 (typ.)
BZV55C68	68	2	240	475	0.5	0.05	48	0.1 (typ.)
BZV55C75	75	2	255	500	0.5	0.05	53	0.1 (typ.)

Notes : 1) Tested with pulses tp = 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 ± 5.0%.
For ± 2% tolerance altered the sixth letter of type from "C" to be "B"