

TZMC Series

V_Z : 2.4 to 75V

P_D : 500mW

FEATURES :

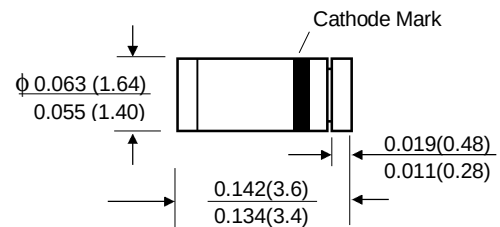
- Silicon planar zener diodes
- Very sharp reverse characteristic
- Low reverse current level
- Available with tighter tolerance
- Very high stability
- Low noise
- Pb / RoHS Free

MECHANICAL DATA :

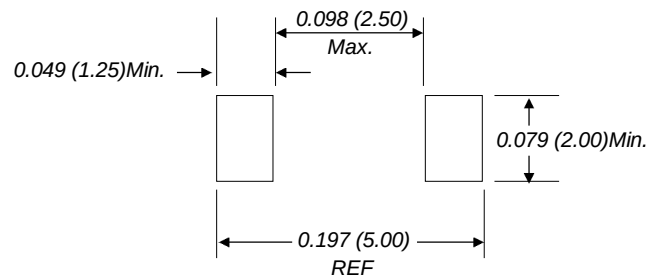
- * Case : MiniMELF Glass Case (SOD-80C)
- * Weight : 0.05 gram (approximately)

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
Power Dissipation ($R_{\theta JA} \leq 300 \text{ K/W}$)	P_D	500	mW
Zener Current	I_Z	P_D / V_Z	mA
Junction temperature	T_J	175	°C
Storage temperature range	T_{STG}	-65 to + 175	°C
Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	500	K / W
Maximum Forward Voltage at $I_F = 200 \text{ mA}$.	V_F	1.5	V

Note:

- (1) Mounted on PC board substrate 50mm x 50mm x 1.6mm

ELECTRICAL CHARACTERISTICS

(Ta = 25 °C unless otherwise noted)

Type	Zener Voltage V _Z @ I _{ZT}			Maximum Zener Impedance			Maximum Reverse Leakage Current			Temp. coefficient of Zener Voltage α _{vz} (% / K)
	Nom (V)	I _{ZT} (mA)	V _{ZT} (V) ⁽¹⁾	Z _{ZT} @ I _{ZT} (Ω)	Z _{Zk} @ I _{ZK} (Ω)	I _{ZK} (mA)	I _R (μA)	I _R ⁽²⁾ (μA)	at V _R	
									(V)	
TZMC2V4	2.4	5	2.28 to 2.56	< 85	< 600	1	< 50	< 100	1	-0.09...-0.06
TZMC2V7	2.7	5	2.5 to 2.9	< 85	< 600	1	< 10	< 50	1	-0.09...-0.06
TZMC3V0	3.0	5	2.8 to 3.2	< 90	< 600	1	< 4	< 40	1	-0.08...-0.05
TZMC3V3	3.3	5	3.1 to 3.5	< 90	< 600	1	< 2	< 40	1	-0.08...-0.05
TZMC3V6	3.6	5	3.4 to 3.8	< 90	< 600	1	< 2	< 40	1	-0.08...-0.05
TZMC3V9	3.9	5	3.7 to 4.1	< 90	< 600	1	< 2	< 40	1	-0.08...-0.05
TZMC4V3	4.3	5	4.0 to 4.6	< 90	< 600	1	< 1	< 20	1	-0.06...-0.03
TZMC4V7	4.7	5	4.4 to 5.0	< 80	< 600	1	< 0.5	< 10	1	-0.05...-0.02
TZMC5V1	5.1	5	4.8 to 5.4	< 60	< 550	1	< 0.1	< 2	1	-0.02...+0.02
TZMC5V6	5.6	5	5.2 to6.0	< 40	< 450	1	< 0.1	< 2	1	-0.05...+0.05
TZMC6V2	6.2	5	5.8 to 6.6	< 10	< 200	1	< 0.1	< 2	2	-0.03...+0.06
TZMC6V8	6.8	5	6.4 to 7.2	< 8	< 150	1	< 0.1	< 2	3	0.03...0.07
TZMC7V5	7.5	5	7.0 to 7.9	< 7	< 50	1	< 0.1	< 2	5	0.03...0.07
TZMC8V2	8.2	5	7.7 to8.7	< 7	< 50	1	< 0.1	< 2	6.2	0.03...0.08
TZMC9V1	9.1	5	8.5 to 9.6	< 10	< 50	1	< 0.1	< 2	6.8	0.03...0.09
TZMC10	10	5	9.4 to 10.6	< 15	< 70	1	< 0.1	< 2	7.5	0.03...0.10
TZMC11	11	5	10.4 to 11.6	< 20	< 70	1	< 0.1	< 2	8.2	0.03...0.11
TZMC12	12	5	11.4 to 12.7	< 20	< 90	1	< 0.1	< 2	9.1	0.03...0.11
TZMC13	13	5	12.4 to 14.1	< 26	< 110	1	< 0.1	< 2	10	0.03...0.11
TZMC15	15	5	13.8 to 15.6	< 30	< 110	1	< 0.1	< 2	11	0.03...0.11
TZMC16	16	5	15.3 to 17.1	< 40	< 170	1	< 0.1	< 2	12	0.03...0.11
TZMC18	18	5	16.8 to 19.1	< 50	< 170	1	< 0.1	< 2	13	0.03...0.11
TZMC20	20	5	18.8 to 21.2	< 55	< 220	1	< 0.1	< 2	15	0.03...0.11
TZMC22	22	5	20.8 to 23.3	< 55	< 220	1	< 0.1	< 2	16	0.04...0.12
TZMC24	24	5	22.8 to 25.6	< 80	< 220	1	< 0.1	< 2	18	0.04...0.12
TZMC27	27	5	25.1 to 28.9	< 80	< 220	1	< 0.1	< 2	20	0.04...0.12
TZMC30	30	5	28 to 32	< 80	< 220	1	< 0.1	< 2	22	0.04...0.12
TZMC33	33	5	31 to 35	< 80	< 220	1	< 0.1	< 2	24	0.04...0.12
TZMC36	36	5	34 to 38	< 80	< 220	1	< 0.1	< 2	27	0.04...0.12
TZMC39	39	2.5	37 to 41	< 90	< 500	1	< 0.1	< 5	30	0.04...0.12
TZMC43	43	2.5	40 to 46	< 90	< 600	0.5	< 0.1	< 5	33	0.04...0.12
TZMC47	47	2.5	44 to 50	< 110	< 700	0.5	< 0.1	< 5	36	0.04...0.12
TZMC51	51	2.5	48 to 54	< 125	< 700	0.5	< 0.1	< 10	39	0.04...0.12
TZMC56	56	2.5	52 to 60	< 135	< 1000	0.5	< 0.1	< 10	43	0.04...0.12
TZMC62	62	2.5	58 to 66	< 150	< 1000	0.5	< 0.1	< 10	47	0.04...0.12
TZMC68	68	2.5	64 to 72	< 200	< 1000	0.5	< 0.1	< 10	51	0.04...0.12
TZMC75	75	2.5	70 to 79	< 250	< 1500	0.5	< 0.1	< 10	56	0.04...0.12

Notes : 1) Tighter tolerances available on request:

TZMA... $\pm 1\%$ of V_{Znom}

TZMB... $\pm 2\%$ of V_{Znom}

TZMF... $\pm 3\%$ of V_{Znom}

2) at T_j = 150 °C