

ZMM1 thru ZMM75

Zener Diodes

Zener Voltage Range: 1V to 75V Power Dissipation 500mW

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Silicon planar power zener diodes
- Total power dissipation: Max 500mW
- Moisture sensitivity: level 1, per J-STD-020
- Zener voltage tolerance is $\pm 5\%$
- Suffix-B zener voltage tolerance is $\pm 2\%$



SOD-80 (MINI MELF)

Applications

Protection from high voltage, high energy transients, voltage stabilization.

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Power Dissipation at T _L =75°C	P _{tot}	500	mW
Typical Thermal Resistance, Junction to Ambient	R _{θJA}	300	°C/W
Maximum Junction Temperature	T _J	175	°C
Storage Temperature Range	T _{STG}	-65 to +175	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Part Number	V _Z (V) at I _{ZT} =5mA					Maximum Zener Impedance (Ω)		Test Voltage	Maximum Reverse Leakage	Maximum Zener Current
	Min	Typ	Max	Suffix-B		I _{ZT} =5mA f=1KHz	I _{ZT} =1mA f=1KHz	V _R (V)	V _R (μA)	I _{ZM} (mA)
				Min	Max					
ZMM1	0.95	1.0	1.05	0.98	1.02	8	50	-	-	340
ZMM2.4	2.28	2.4	2.52	2.35	2.45	100	600	0.8	50	175
ZMM2.7	2.57	2.7	2.84	2.65	2.75	83	500	0.8	20	160
ZMM3	2.85	3.0	3.15	2.94	3.06	95	500	0.8	20	140
ZMM3.3	3.14	3.3	3.47	3.23	3.37	95	500	0.8	6	130
ZMM3.6	3.42	3.6	3.78	3.53	3.67	95	500	0.8	6	120
ZMM3.9	3.71	3.9	4.10	3.82	3.98	95	500	0.8	1.6	110
ZMM4.3	4.09	4.3	4.52	4.21	4.39	95	500	0.8	1	100
ZMM4.7	4.47	4.7	4.94	4.61	4.79	78	500	0.8	0.1	90
ZMM5.1	4.85	5.1	5.36	5.00	5.20	60	480	0.8	0.1	80
ZMM5.6	5.32	5.6	5.88	5.49	5.71	40	400	1	0.1	70
ZMM6.2	5.89	6.2	6.51	6.08	6.32	10	200	2	0.1	64
ZMM6.8	6.46	6.8	7.14	6.66	6.94	8	150	3	0.1	58
ZMM7.5	7.13	7.5	7.88	7.35	7.65	7	50	5	0.1	53
ZMM8.2	7.79	8.2	8.61	8.04	8.36	7	50	6	0.1	47
ZMM9.1	8.65	9.1	9.56	8.92	9.28	10	50	7	0.1	43
ZMM10	9.50	10	10.50	9.80	10.20	15	70	7.5	0.1	40
ZMM11	10.45	11	11.55	10.78	11.22	20	70	8.5	0.1	36
ZMM12	11.40	12	12.60	11.76	12.24	20	90	9	0.1	32
ZMM13	12.35	13	13.65	12.74	13.26	25	110	10	0.1	29
ZMM15	14.25	15	15.75	14.70	15.30	30	110	11	0.1	27
ZMM16	15.20	16	16.80	15.68	16.32	40	170	12	0.1	24
ZMM18	17.10	18	18.90	17.64	18.36	50	170	14	0.1	21
ZMM20	19.00	20	21.00	19.60	20.40	50	220	15	0.1	20
ZMM22	20.90	22	23.10	21.56	22.44	55	220	17	0.1	18
ZMM24	22.80	24	25.20	23.52	24.48	80	220	18	0.1	16
ZMM27	25.65	27	28.35	26.46	27.54	80	250	20	0.1	14
ZMM30	28.50	30	31.50	29.40	30.60	80	250	22.5	0.1	13
ZMM33	31.35	33	34.65	32.34	33.66	80	250	25	0.1	12
ZMM36	34.20	36	37.80	35.28	36.72	90	250	27	0.1	11
ZMM39	37.05	39	40.95	38.22	39.78	90	300	29	0.1	10
ZMM43	40.85	43	45.15	42.14	43.86	100	700	32	0.1	9.2
ZMM47	44.65	47	49.35	46.06	47.94	100	750	35	0.1	8.5
ZMM51	48.45	51	53.55	49.98	52.02	100	750	38	0.1	7.8
ZMM56	53.20	56	58.80	54.88	57.12	135	1000	42	0.1	7.1
ZMM62	58.90	62	65.10	60.76	63.24	150	1000	47	0.1	6.4
ZMM68	64.60	68	71.40	66.64	69.36	200	1000	51	0.1	5.8
ZMM75	71.25	75	78.75	73.50	76.50	250	1500	55	0.1	5.3

Notes:

1. Zener voltage tolerance is ±5%.
2. Suffix-B zener voltage tolerance is ±2%.

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

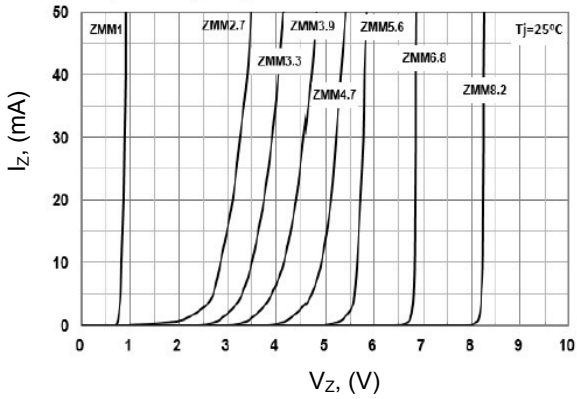


Figure 1. Breakdown Characteristics at T_J =Constant (Pulsed)

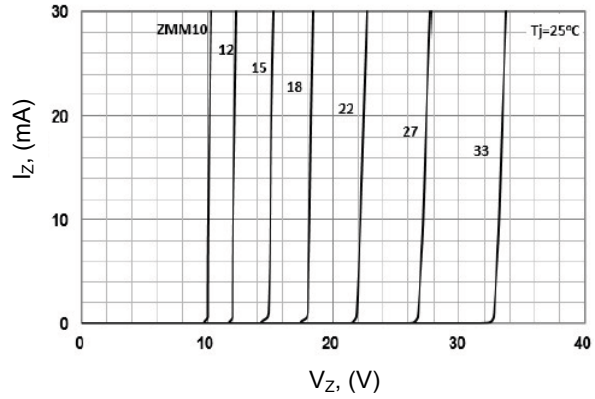


Figure 2. Breakdown Characteristics at T_J =Constant (Pulsed)

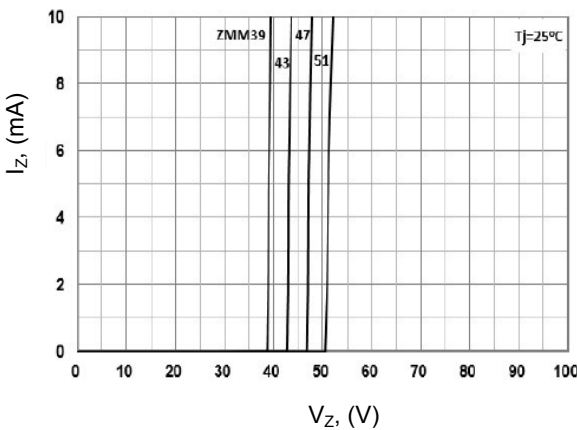


Figure 3. Breakdown Characteristics at T_J =Constant (Pulsed)

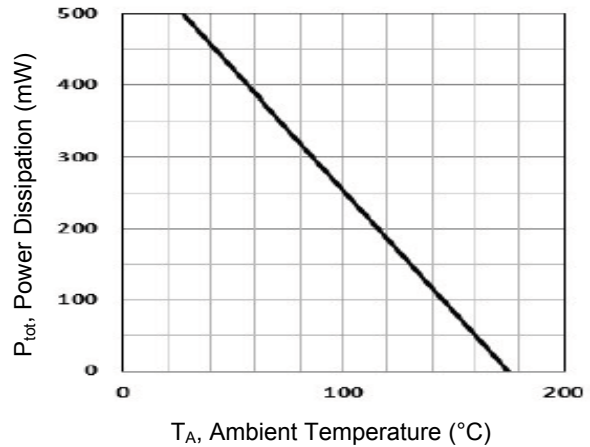


Figure 4. Admissible Power Dissipation vs. Ambient Temperature

Valid provided that leads are kept at ambient temperature

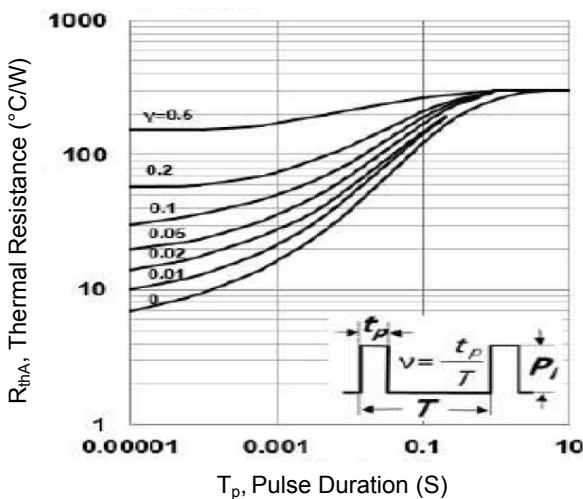


Figure 5. Pulse Thermal Resistance vs. Pulse Duration

Valid provided that leads are kept at ambient temperature

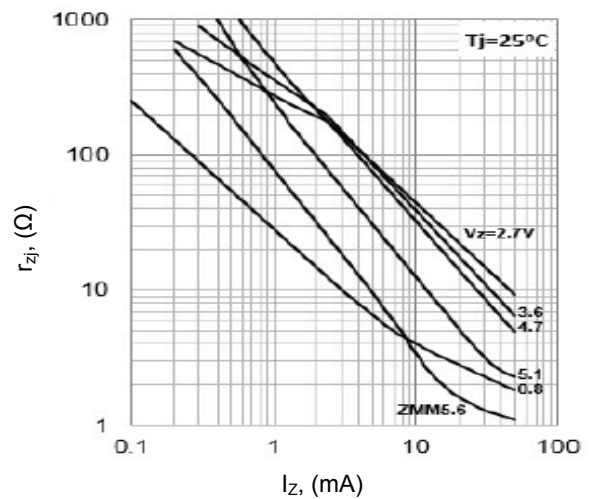


Figure 6. Dynamic Resistance vs. Zener Current

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

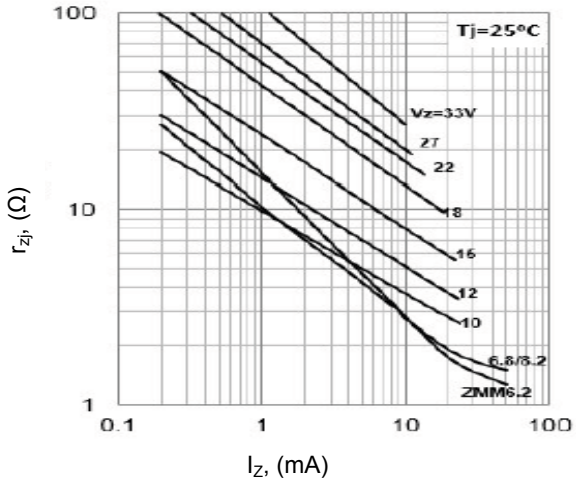


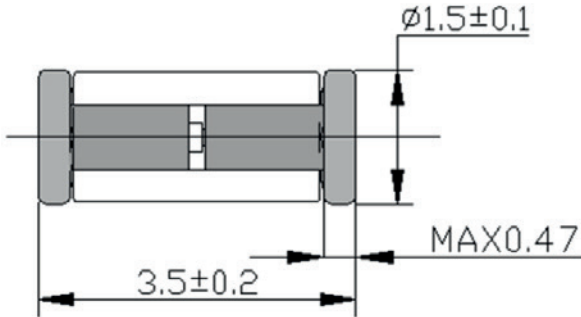
Figure 7. Dynamic Resistance vs. Zener Current

ZMM1 thru ZMM75

Zener Diodes

Zener Voltage Range: 1V to 75V Power Dissipation 500mW

Package Outline Dimensions SOD-80 (MINI MELF)



Unit: mm

Order Information

Device	Package	Marking	Carrier	Quantity
ZMMx	SOD-80 (MINI MELF)	Cathode line	Tape & Reel	2,500pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com