



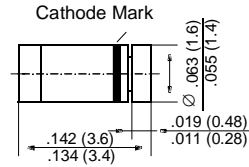
ZENER DIODE

ZMM1 THRU ZMM20

FEATURES

- Silicon Planar Zener Diodes
- In Mini-MELF case especially for automatic insertion.
- The Zener voltages are graded according to the international E24 standard. Smaller are available tolerances and other Zener voltages are available upon request.
- These diodes are also available in DO-35 case with the type designation ZPD1...ZPD51.

Mini-MELF



MECHANICAL DATA

- Case: Mini-MELF Glass Case (SOD-80)
- Weight: approx.0.05g

Dimensions are in inches and (millimeters)

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener Current (see Table "Characteristics")			
Power Dissipation at T <sub>amb</sub> = 25°C	P <sub>tot</sub>	500 <sup>(1)</sup>	mW
Junction Temperature	T <sub>j</sub>	175	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to +175	°C

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Thermal Resistance Junction to Ambient Air	R <sub>thJA</sub>	-	-	0.3 <sup>(1)</sup>	°C/W

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature.

# ZMM1 THRU ZMM75

## ELECTRICAL CHARACTERISTICS

atings at 25°C ambient temperature unless otherwise specified.

Type	Zener Voltage <sup>(1)</sup> at $I_z = 5 \text{ mA}$ $V_z \text{ V}$	Dynamic Resistance		MAXIMUM INSTANTANEOUS FORWARD VOLTAGE	
		at $I_z = 5 \text{ mA}$ $f = 1 \text{ kHz}$ $r_{zj} \Omega$	at $I_z = 0.25 \text{ mA}$ $f = 1 \text{ kHz}$ $r_{zj} \Omega$	$I_R (\mu\text{A})$	$V_R \text{ (V)}$
ZMM2.7	2.58...2.82	< 100	< 1900	<75	1
ZMM3	2.87...3.13	< 95	< 2000	<50	1
ZMM3.3	3.16...3.44	< 95	< 2200	<25	1
ZMM3.6	3.44...3.76	< 90	< 2300	<15	1
ZMM3.9	3.73...4.07	< 90	< 2400	<10	1
ZMM4.3	4.11...4.49	< 88	< 2500	<5	1
ZMM4.7	4.49...4.91	< 70	< 2050	<3	1.5
ZMM5.1	4.88...5.32	< 50	< 1800	<2	2
ZMM5.6	5.35...5.85	< 25	< 1300	<2	3
ZMM6.2	5.93...6.47	< 10	< 750	<1	4
ZMM6.8	6.50...7.10	< 8	< 600	<1	5.2
ZMM7.5	7.17...7.83	< 7	< 600	<0.5 6	
ZMM8.2	7.84...8.56	< 7	< 600	<0.5	6.5
ZMM9.1	8.70...9.50	< 10	< 600	<0.1	7
ZMM10	9.55...10.45	< 15	< 600	<0.1	8
ZMM11	10.51...11.49	< 18	< 600	<0.1	8.4
ZMM12	11.45...12.54	< 22	< 600	<0.1	9.1
ZMM13	12.42...13.58	< 25	< 600	<0.1	9.9
ZMM15	14.33...15.67	< 32	< 600	<0.1	11
ZMM16	15.28...16.72	< 36	< 600	<0.1	12
ZMM18	17.19...18.81	< 42	< 600	<0.1	14
ZMM20	19.10...20.90z	< 48	< 600	<0.1	15