

## Small Signal Zener Diodes



### FEATURES

- Very high stability
- Low noise
- AEC-Q101 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
V <sub>Z</sub> range nom.	1.0	V
Test current I <sub>ZT</sub>	5	mA
V <sub>Z</sub> specification	Pulse current	
Int. construction	Single	

### APPLICATIONS

- Voltage stabilization

ORDERING INFORMATION			
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
TZMC1V0	TZMC1V0-GS18	10 000 (8 mm tape on 13" reel)	10 000/box
TZMC1V0	TZMC1V0-GS08	2500 (8 mm tape on 7" reel)	12 500/box

PACKAGE				
PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
MiniMELF SOD-80	31 mg	-	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

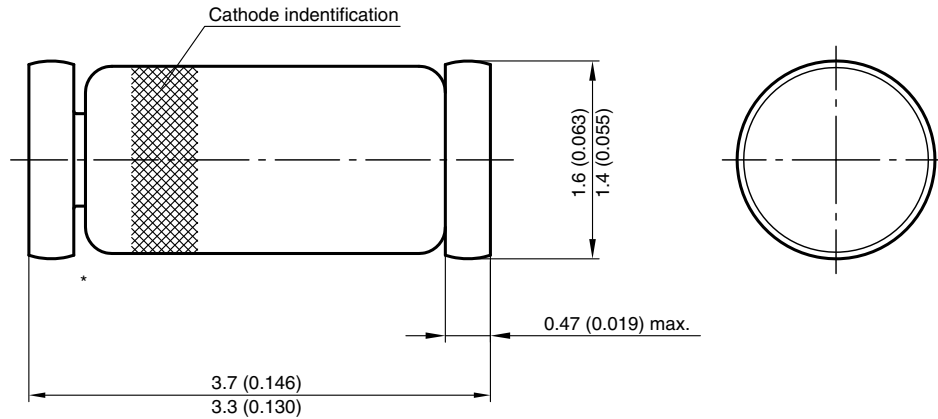
ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Power dissipation	R <sub>thJA</sub> ≤ 300 K/W	P <sub>tot</sub>	500	mW	
Zener current		I <sub>Z</sub>	P <sub>tot</sub> /V <sub>Z</sub>	mA	
Junction temperature		T <sub>J</sub>	175	°C	
Storage temperature range		T <sub>stg</sub>	-65 to +175	°C	
Thermal resistance junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	R <sub>thJA</sub>	500	K/W	

ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)								
PART NUMBER	ZENER VOLTAGE RANGE		TEST CURRENT		DYNAMIC RESISTANCE		TEMPERATURE COEFFICIENT OF ZENER VOLTAGE	
	V <sub>Z</sub> at I <sub>ZT1</sub>		I <sub>ZT1</sub>	I <sub>ZT2</sub>	Z <sub>Z</sub> at I <sub>ZT1</sub>	Z <sub>ZK</sub> at I <sub>ZT2</sub>	TK <sub>VZ</sub>	
	V		mA		Ω		% / K	
	MIN.	MAX.			TYP.	TYP.	MIN.	MAX.
TZMC1V0 <sup>(1)</sup>	0.7	0.8	5	1	< 8	< 50	-0.26	-0.23

#### Note

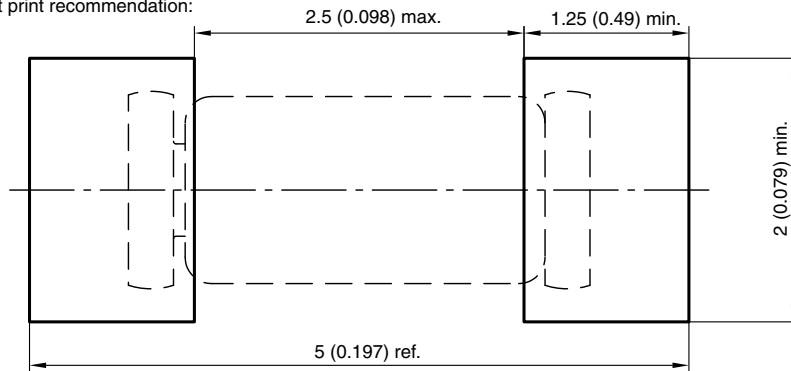
<sup>(1)</sup> The TZMC1V0 is a silicon diode operated in forward direction. Hence the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to negative pole.

**PACKAGE DIMENSIONS** in millimeters (inches): **MiniMELF SOD-80**



\* The gap between plug and glass can be either on cathode or anode side

Foot print recommendation:



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 96 12070



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