

# MMSZ4691WS SERIES

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 6.2 ~ 15 Volt **POWER** 200 mWatt

**SOD-323**

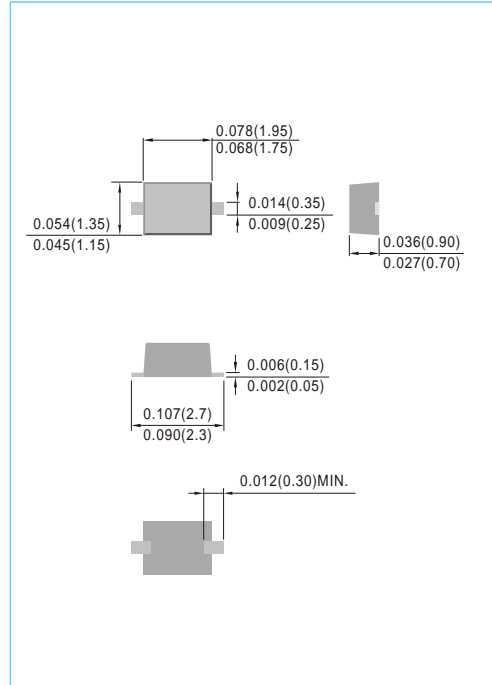
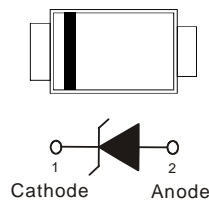
Unit : inch(mm)

### FEATURES

- Planar Die construction
- 200mW Power Dissipation
- Ultra Thin Profile Package for Space Constrained Utilization
- Package suitable for Automated Handling
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.00014 ounces, 0.0041 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Maximum Power Dissipation (Note 1)	P <sub>D</sub>	200	mW
Typical Thermal Resistance , Junction to Ambient (Note 1) Junction to Case (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	625 400	°C/W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

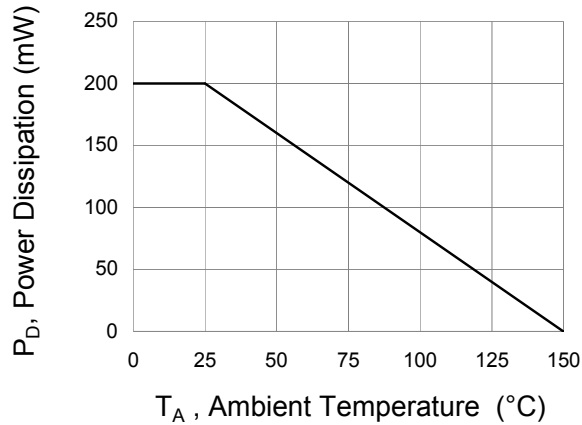
Part Number	Nominal Zener Voltage			Max. Zener Impedance	Max Reverse Leakage Current		Marking Code
	V <sub>z</sub> @ I <sub>zT</sub>				I <sub>zT</sub>	I <sub>R</sub> @ V <sub>R</sub>	
	Nom. V	Min. V	Max. V	mA	μA	V	
MMSZ4691WS	6.2	5.89	6.51	0.05	10	5	CA
MMSZ4692WS	6.8	6.46	7.14	0.05	10	5.1	CX
MMSZ4702WS	15	14.25	15.75	0.05	0.05	11.4	DM

### NOTES:

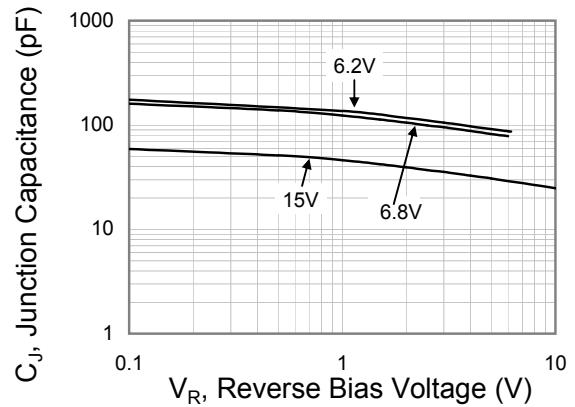
1. Mounted on 48cm<sup>2</sup> FR-4 PCB Board.

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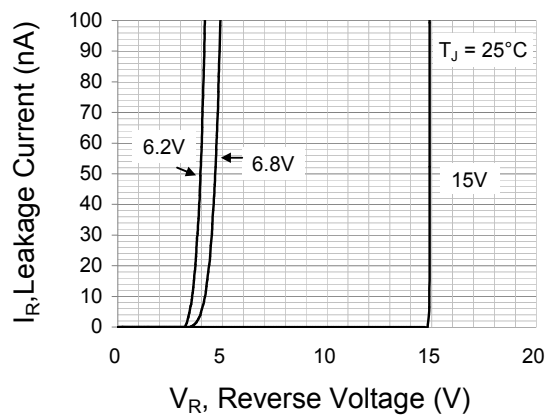
## RATING AND CHARACTERISTIC CURVES



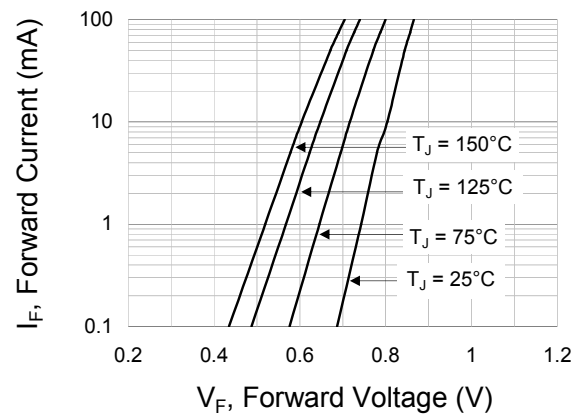
**Fig.1 Power Derating Curve**



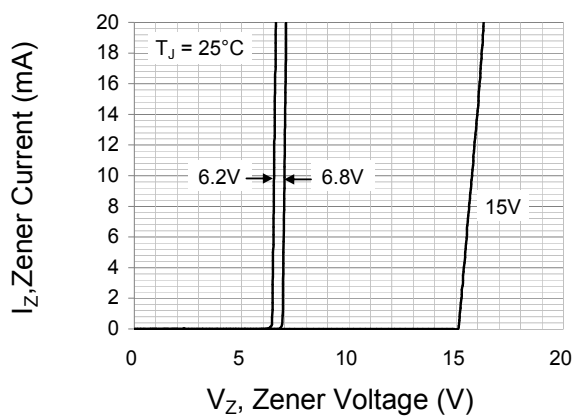
**Fig.2 Typical Junction Capacitance**



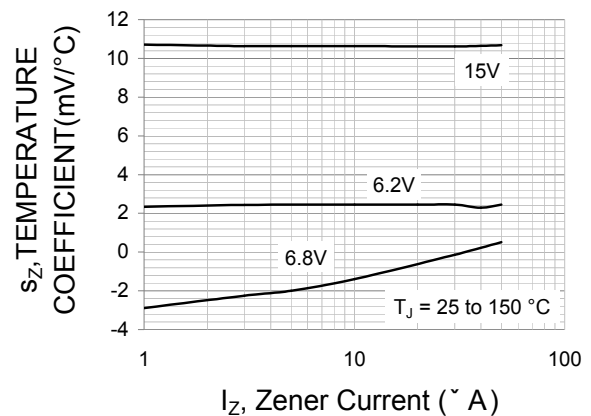
**Fig.3 Typical Leakage Characteristics**



**Fig.4 Typical Forward Characteristics**



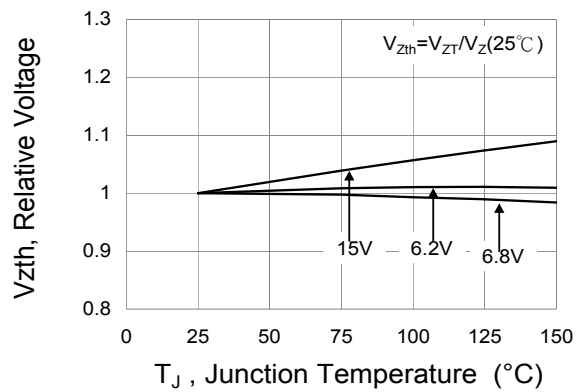
**Fig.5 Typical Zener Characteristics**



**Fig.6 Temperature coefficient as a function of working current; typical values**

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### RATING AND CHARACTERISTIC CURVES



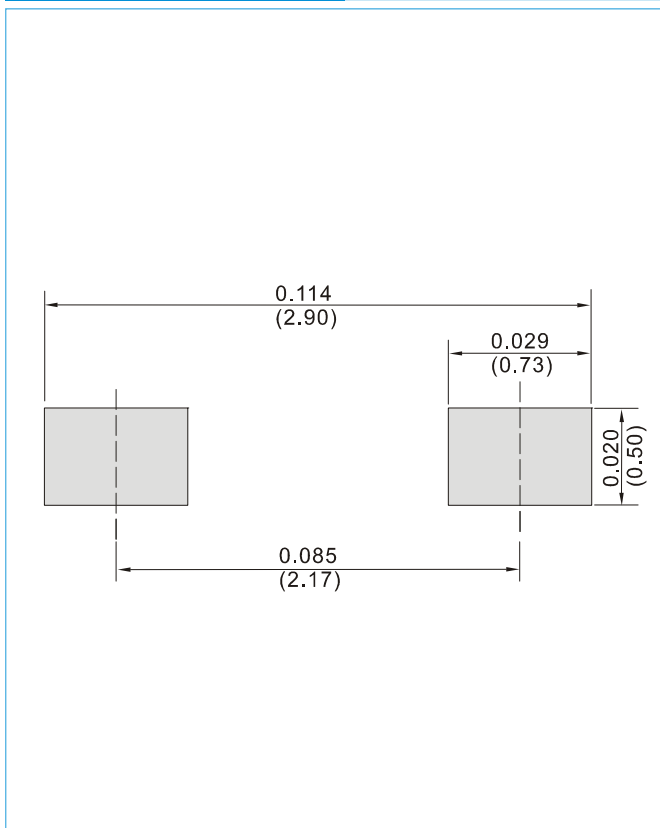
**Fig.10 Junction temperature of working voltage vs junction temperature**

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## MOUNTING PAD LAYOUT

**SOD-323**

Unit : inch(mm)



## ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

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**Part No\_packing code\_Version**

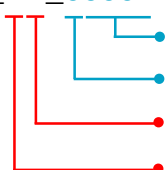
MMSZ4691WS\_R1\_00001

MMSZ4691WS\_R2\_00001

**For example :**

**RB500V-40\_R2\_00001**

Part No.



Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code <b>XX</b>				Version Code <b>XXXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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