



#### **SURFACE MOUNT SILICON ZENER DIODES**

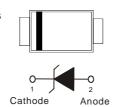
VOLTAGE 6.2 ~ 15 Volt POWER 200 mWatt

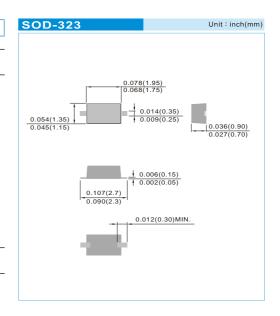
#### **FEATURES**

- 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
- · Acquire quality system certificate: TS16949
- AEC-Q101 qualified
- 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 (TA=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>eja</sub> R <sub>ejl</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	
		Vz @ Izt		lzт	IR @ VR		Code
	Nom. V	Min. V	Max. V	mA	μΑ	V	
MMSZ4691WS-AU	6.2	5.89	6.51	0.05	10	5	CA
MMSZ4692WS-AU	6.8	6.46	7.14	0.05	10	5.1	CX
MMSZ4702WS-AU	15	14.25	15.75	0.05	0.05	11.4	DM

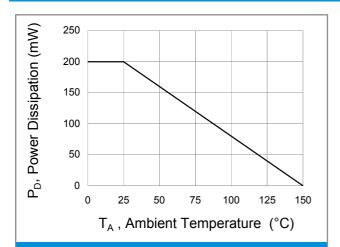
#### NOTES:

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





#### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Power Derating Curve** 

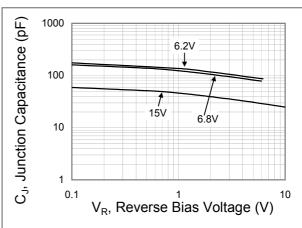


Fig.2 Typical Junction Capacitance

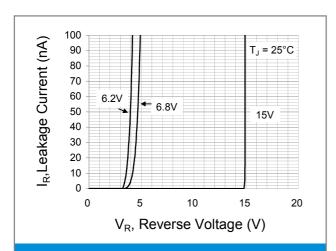


Fig.3 Typical Leakage Characteristics

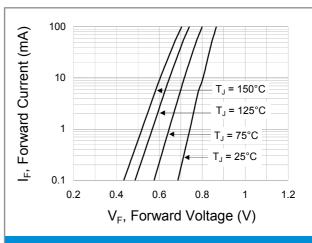


Fig.4 Typical Forward Characteristics

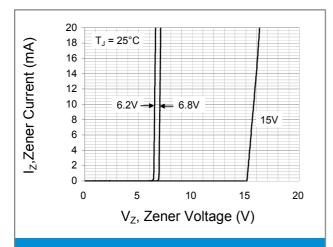


Fig.5 Typical Zener Characteristics

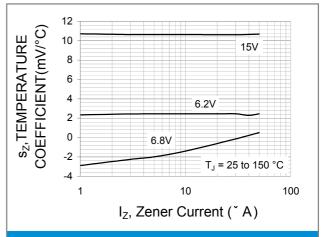


Fig.6 Temperature coefficient as a function of working current; typical values





### **RATING AND CHARACTERISTIC CURVES**

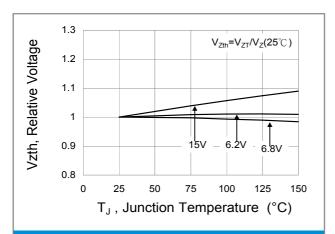
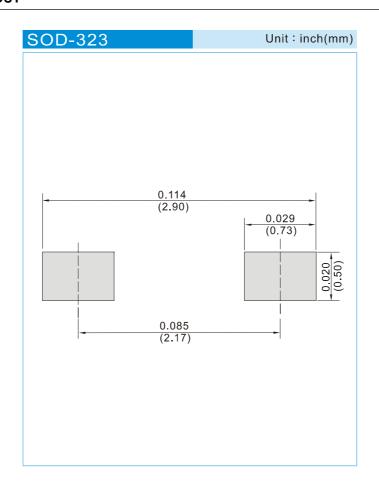


Fig.10 Junction temperature of working voltage vs junction temperature





### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

• Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel





### Part No\_packing code\_Version

MMSZ4691WS-AU\_R1\_000A1 MMSZ4691WS-AU\_R2\_000A1

### For example:



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





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