

Zener Diodes

SOD-323F, AEC-Q101

MMSZ-S-A Series

MERITEK

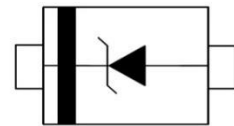
FEATURE

- Zener Voltage Range: 6.2~15V
- Zener Voltage Tolerance: $\pm 5\%$
- Power Dissipation: 200mW
- Ideally Suited for Automated Assembly Processes
- Application: Power Management Systems, Voltage Regulation
- AEC-Q101 Qualified



MECHANICAL DATA

- Case: SOD-323F, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Band Marking Denotes Cathode End



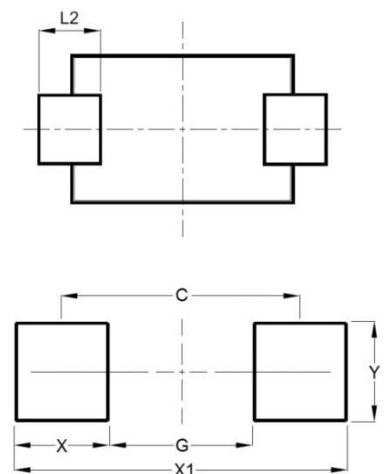
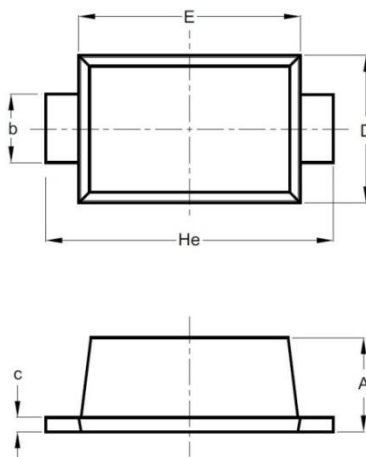
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation	P_D	200	mW
Resistance Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}C/W$
Resistance Junction to Case	$R_{\theta JL}$	400	$^{\circ}C/W$
Junction Temperature	T_J	-55~+150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}C$

Note: $T_A = 25^{\circ}C$ unless otherwise noted

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.70	0.90
b	0.25	0.35
c	0.05	0.15
D	1.15	1.35
E	1.75	1.95
He	2.30	2.70
L2	0.30	-
C	2.17	2.17
G	1.44	1.44
X	0.73	0.73
X1	2.90	2.90
Y	0.50	0.50



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ELECTRICAL CHARACTERISTICS

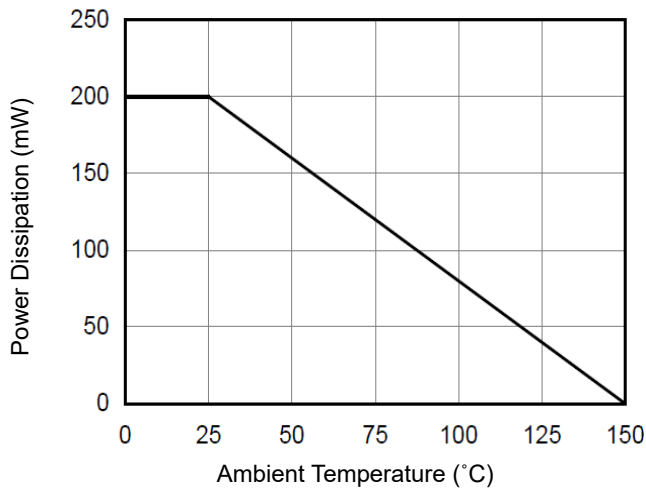
Part Number	Nominal Zener Voltage			Reverse Leakage Current		
	V_Z at I_{ZT}			I_{ZT}	I_R max	at V_R
	Nom (V)	Min (V)	Max (V)	(mA)	(μ A)	(V)
MMSZ4691S-A	6.2	5.89	6.51	0.05	10	5.0
MMSZ4692S-A	6.8	6.46	7.14	0.05	10	5.1
MMSZ4702S-A	15	14.25	15.75	0.05	0.05	11.4

Note:

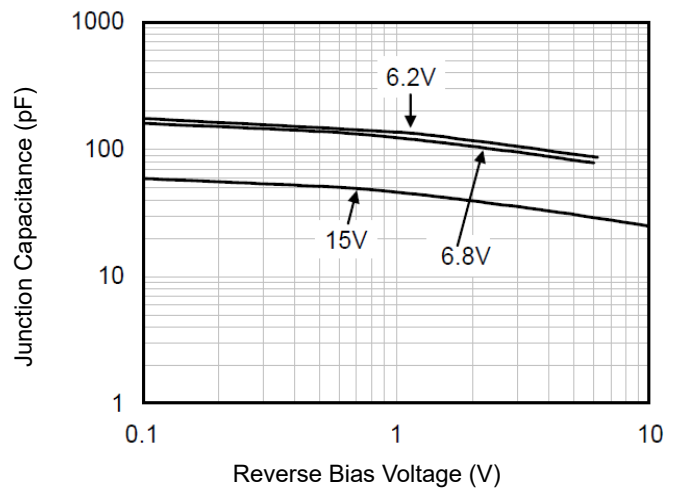
- $T_A = 25^\circ\text{C}$ unless otherwise noted
- Mounted on 48cm^2 FR-4 PCB.

CHARACTERISTIC CURVES

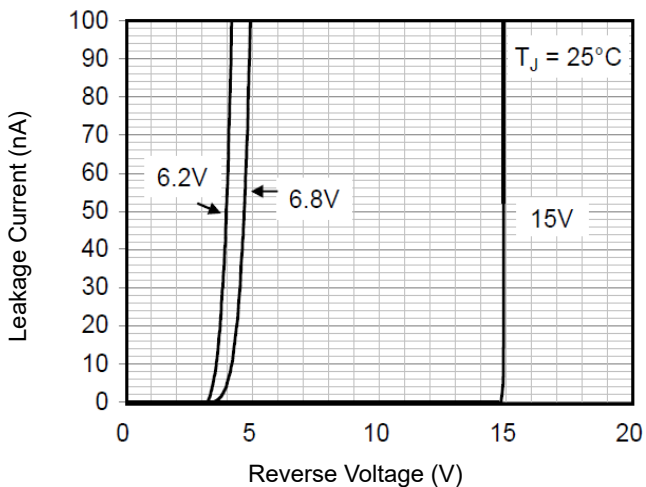
Power Derating



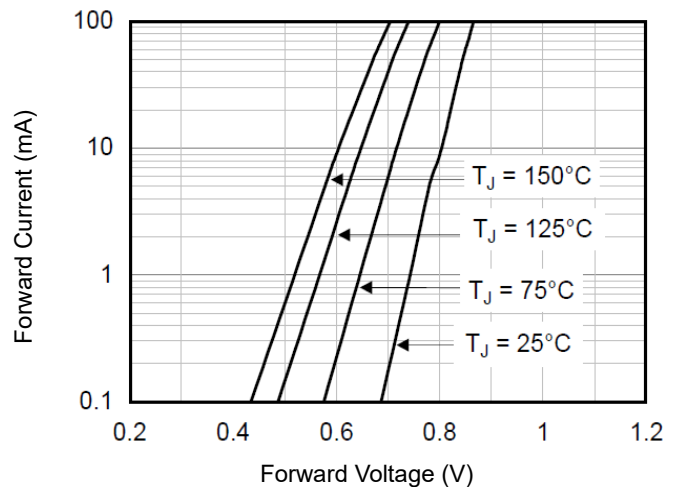
Typical Junction Capacitance



Typical Leakage Characteristics



Typical Forward Characteristics



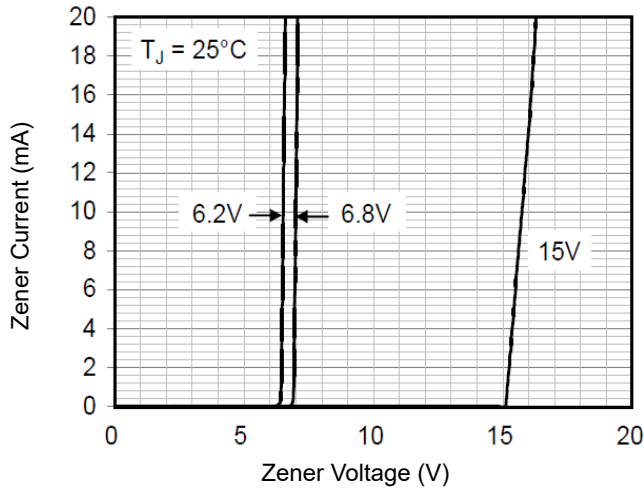
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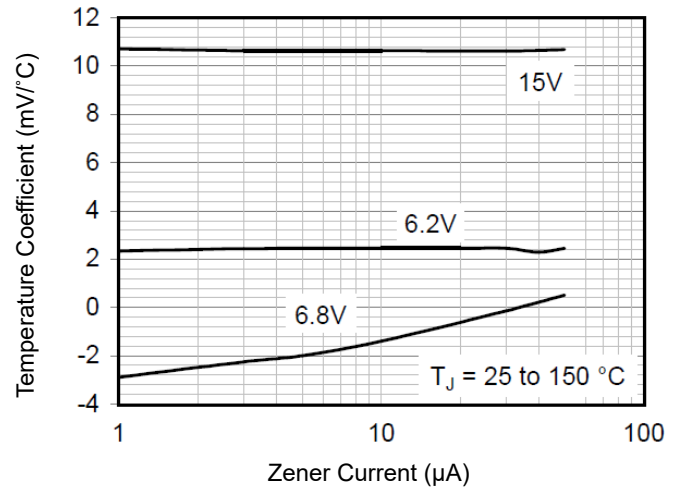
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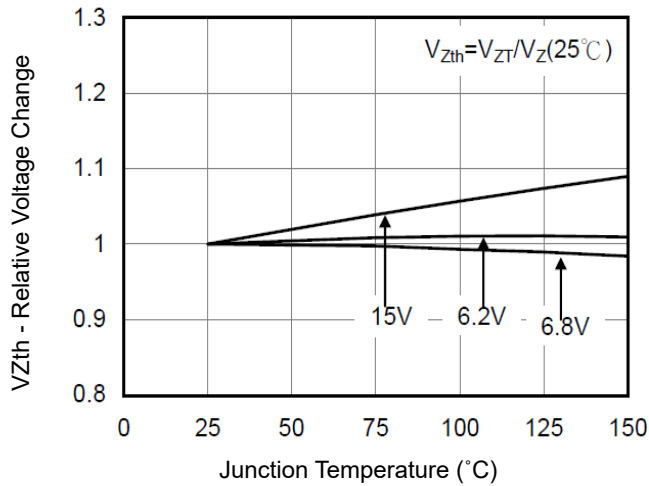
Typical Zener Characteristics



Temperature Coefficient



Zener Voltage Change vs Junction Temperature



*Specifications subject to change without notice.