

# Zener Diodes

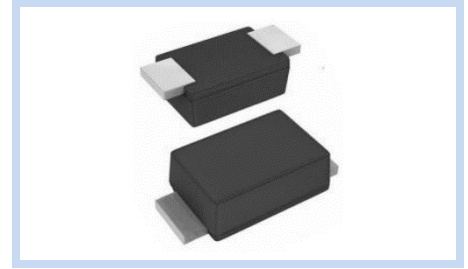
## 500mW SOD-123FL

MMSZ46XX Series

**MERITEK**

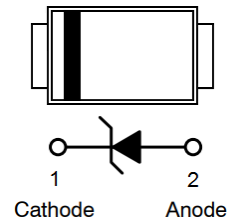
### FEATURE

- Breakdown Voltage Range: 5.1V to 43V
- Zener Voltage Tolerance:  $\pm 5\%$
- Power Dissipation: 500mW
- Silicon Planar Zener Diode
- Application: Power Management Systems, Voltage Regulation



### MECHANICAL DATA

- Case: SOD-123FL, Molded Plastic
- Terminals: Solderable Per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End



### ABSOLUTE MAXIMUM RATINGS

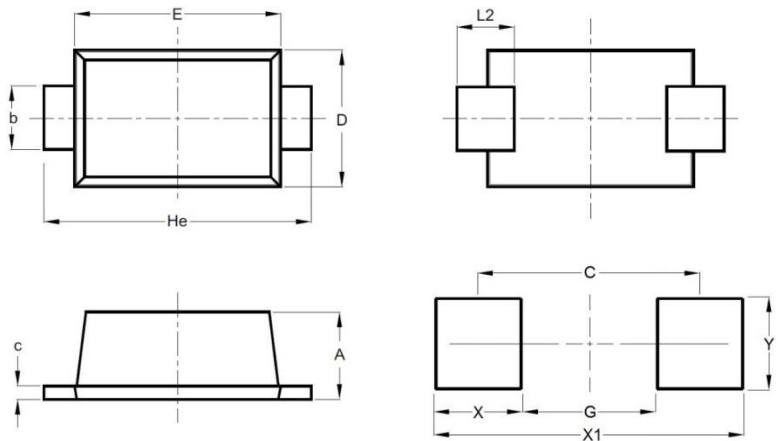
Parameter	Symbols	Value	Unit
Power Dissipation	$P_D$	500	mW
Maximum Forward Voltage at $I_F=10mA$	$V_F$	0.9	V
Resistance From Junction to Ambient	$R_{\theta JA}$	340	$^{\circ}C/W$
Resistance From Junction to Lead	$R_{\theta JL}$	150	$^{\circ}C/W$
Junction Temperature	$T_J, T_{STG}$	150	$^{\circ}C$
Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^{\circ}C$

Note:

1.  $T_A = 25^{\circ}C$  unless otherwise noted.
2. Device mounted on FR-4 PCB 38x38x1.6mm with single-sided Cu pad areas 25mm<sup>2</sup> (>70 $\mu$ m thick)

### DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	1.05	1.15
b	1.05	1.15
C	0.10	0.14
D	1.55	1.65
E	2.60	2.70
He	3.55	3.85
L2	0.50	1.10
C	2.86	
G	1.52	
X	1.34	
X1	4.20	
Y	1.80	



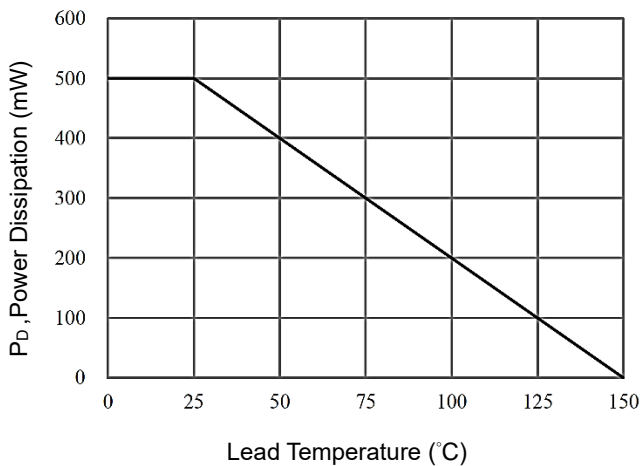
**ELECTRICAL CHARACTERISTICS**

Part Number	Zener Voltage Range			Reverse Current		
	V <sub>Z</sub>			At I <sub>ZT</sub>	I <sub>R</sub>	At V <sub>R</sub>
	Min (V)	Nom (V)	Max (V)	( $\mu$ A)	Max ( $\mu$ A)	(V)
MMSZ4697	9.50	10.00	10.50	50	1.00	7.6
MMSZ4698	10.45	11.00	11.55	50	0.05	8.4
MMSZ4699	11.40	12.00	12.60	50	0.05	9.1
MMSZ4700	12.35	13.00	13.65	50	0.05	9.8
MMSZ4701	13.30	14.00	14.70	50	0.05	19.6
MMSZ4702	14.25	15.00	15.75	50	0.05	11.4
MMSZ4703	15.20	16.00	16.80	50	0.05	12.1
MMSZ4705	17.10	18.00	18.90	50	0.05	13.6
MMSZ4707	19.00	20.00	21.00	50	0.01	15.2
MMSZ4708	20.90	22.00	23.10	50	0.01	16.7
MMSZ4709	22.80	24.00	25.20	50	0.01	18.2
MMSZ4711	25.65	27.00	28.35	50	0.01	20.4
MMSZ4713	28.50	30.00	31.50	50	0.01	22.8
MMSZ4714	31.35	33.00	34.65	50	0.01	25.0
MMSZ4715	34.20	36.00	37.80	50	0.01	27.3
MMSZ4716	37.05	39.00	40.95	50	0.01	29.6
MMSZ4717	40.85	43.00	45.15	50	0.01	32.6

Note:  
3. V<sub>ZT</sub> is tested with pulse tp = 20ms.

**CHARACTERISTIC CURVES**

Junction Capacitance at lower Breakdown Voltage



\*Specifications subject to change without notice.