



# MMSZ2V4 THRU MMSZ75V

Surface Mount Zener Diode

## Features

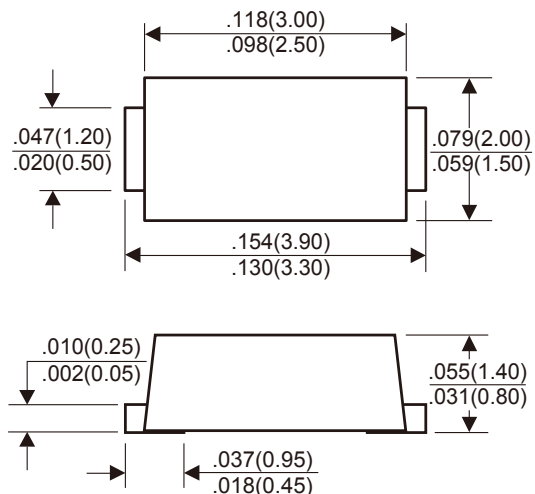
- ★ Ideally suited for automated assembly processes
- ★ High reliability
- ★ Zener voltage tolerance is  $\pm 5\%$

## Mechanical Data

- ★ Case: Molded plastic, SOD-123FL
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

**Zener Voltage 2.4 to 75 V**  
**Power Dissipation 500 mW**

### SOD-123FL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS

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

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	$P_D$	500	mW
Junction temperature range	$T_J$	-65 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65 to +150	$^\circ\text{C}$

# MMSZ2V4 THRU MMSZ75V

Electrical Characteristics( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$	
		Min (V)	Max (V)	$I_{ZT}$ (mA)	$Z_{ZT}@I_{ZT}$ ( $\Omega$ )	$Z_{ZK}@I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_R$ (V)
MMSZ2V4	2V4Z	2.28	2.52	5	100	564	1	45	1
MMSZ2V7	2V7Z	2.57	2.84	5	100	564	1	18	1
MMSZ3V0	3V0Z	2.85	3.15	5	100	564	1	9	1
MMSZ3V3	3V3Z	3.14	3.47	5	95	564	1	4.5	1
MMSZ3V6	3V6Z	3.42	3.78	5	90	564	1	4.5	1
MMSZ3V9	3V9Z	3.71	4.10	5	90	564	1	2.7	1
MMSZ4V3	4V3Z	4.09	4.52	5	90	564	1	2.7	1
MMSZ4V7	4V7Z	4.47	4.94	5	80	470	1	2.7	2
MMSZ5V1	5V1Z	4.85	5.36	5	60	451	1	1.8	2
MMSZ5V6	5V6Z	5.32	5.88	5	40	376	1	0.9	2
MMSZ6V2	6V2Z	5.89	6.51	5	10	141	1	2.7	4
MMSZ6V8	6V8Z	6.46	7.14	5	15	75	1	1.8	4
MMSZ7V5	7V5Z	7.11	7.86	5	15	75	1	0.9	5
MMSZ8V2	8V2Z	7.79	8.61	5	15	75	1	0.63	5
MMSZ9V1	9V1Z	8.65	9.56	5	15	94	1	0.45	6
MMSZ10V	10VZ	9.50	10.50	5	20	141	1	0.18	7
MMSZ11V	11VZ	10.45	11.55	5	20	141	1	0.09	8
MMSZ12V	12VZ	11.40	12.60	5	25	141	1	0.09	8
MMSZ13V	13VZ	12.35	13.65	5	30	160	1	0.09	8
MMSZ15V	15VZ	14.25	15.75	5	30	188	1	0.045	10.5
MMSZ16V	16VZ	15.20	16.80	5	40	188	1	0.045	11.2
MMSZ18V	18VZ	17.10	18.90	5	45	212	1	0.045	12.6
MMSZ20V	20VZ	19.00	21.00	5	55	212	1	0.045	14.0
MMSZ22V	22VZ	20.90	23.10	5	55	235	1	0.045	15.4
MMSZ24V	24VZ	22.80	25.20	5	70	235	1	0.045	16.8
MMSZ27V	27VZ	25.65	28.35	2	80	282	0.5	0.045	18.9
MMSZ30V	30VZ	28.50	31.50	2	80	282	0.5	0.045	21.0
MMSZ33V	33VZ	31.35	34.65	2	80	306	0.5	0.045	23.0
MMSZ36V	36VZ	34.20	37.80	2	90	329	0.5	0.045	25.2
MMSZ39V	39VZ	37.05	40.95	2	130	329	0.5	0.045	27.3
MMSZ43V	43VZ	40.85	45.15	2	150	353	0.5	0.045	30.1
MMSZ47V	47VZ	44.65	49.35	2	170	353	0.5	0.045	33.0
MMSZ51V	51VZ	48.45	53.55	2	180	376	0.5	0.045	35.7
MMSZ56V	56VZ	53.20	58.80	2	200	400	0.5	0.045	39.2
MMSZ62V	62VZ	58.90	65.10	2	215	423	0.5	0.045	43.4
MMSZ68V	68VZ	64.60	71.40	2	240	447	0.5	0.045	47.6
MMSZ75V	75VZ	71.25	78.75	2	255	470	0.5	0.045	52.5

# RATINGS AND CHARACTERISTICS CURVES MMSZ2V4 THRU MMSZ75V

Fig.1 - Power Derating Curve

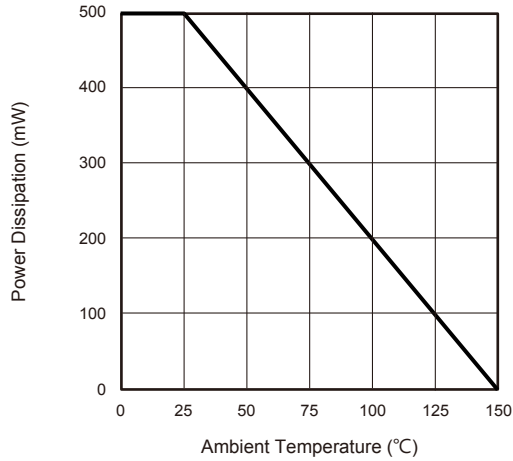


Fig.2 - Typical Instantaneous Forward Characteristics

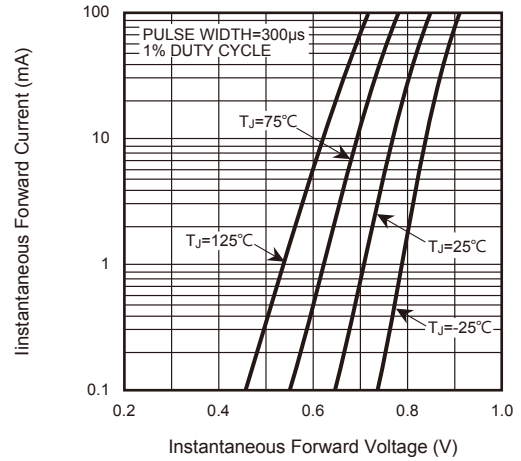


Fig.3 - Effect of Zener Current on Zener Impedance

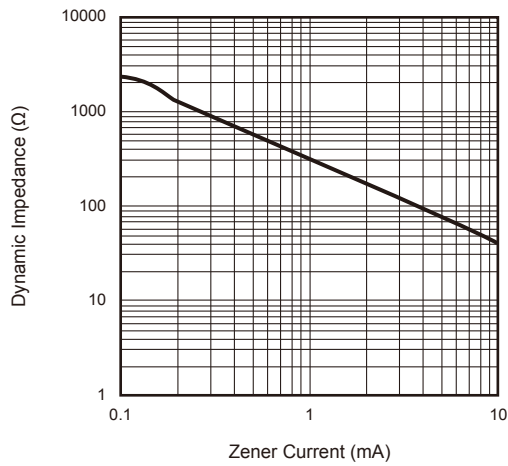


Fig.4 -  $V_R$ - $I_R$  Characteristics

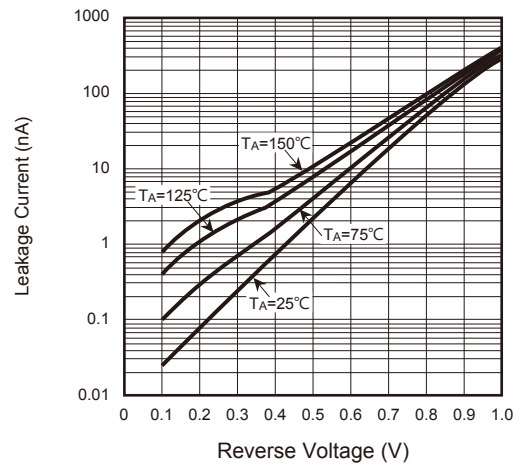


Fig.5 -  $V_R$ - $C_T$  Characteristics

