MMSZ2V0 THRU MMSZ75V

ZENER DIODES

REVERSE VOLTAGE: **2.0 TO 75 VOLTS**

POWER DISSIPATION: **500 mWATTS**

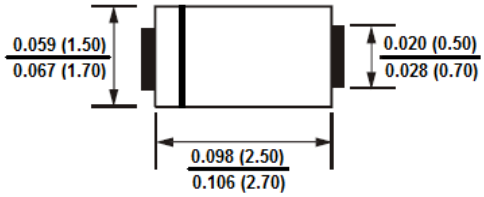
FEATURES

· Zener Voltage Range 2.0 to 75 Volts

· Clip Bonding Construction, Good Thermal Capability

· Suffix "H" indicates Halogen-free parts, ex. MMSZ2V0H

SOD-123FL

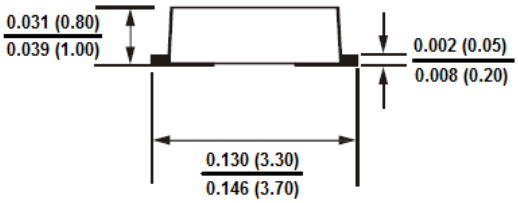


MECHANICAL DATA

Case : SOD-123FL

Mounting Position : Any

Polarity : Indicated by cathode band



Dimensions in inchs and (millimeters)

ELECTRICAL SYMBOL

Maximum Ratings @ 25 °C Unless Otherwise Specified

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-65 to +150	℃

Parameter	Symbol	Value	Unit
Forward Voltage at I_F = 10mA	V_F	0.9	V

MMSZ2V0 THRU MMSZ75V

ZENER DIODES

Electrical Characteristics

Tamb = 25 °C, unless otherwise specified

Type	Marking Code	V_Z@ I_{ZT} NORMAL ZENER VOLTAGE			I_{ZT}	Z_{ZT}@ I_{ZT} Max.	I_{ZK}	Z_{ZK} @ I_{ZK} Max.	I_R @ V_R Max.	V_R
		Min.	Nom.	Max.						
		V	V	V	mA	Ω	mA	Ω	μA	V
MMSZ2V0	2V0Z	1.90	2.0	2.10	5	100	1	600	120	0.5
MMSZ2V2	2V2Z	2.09	2.2	2.31	5	100	1	600	120	0.7
MMSZ2V4	2V4Z	2.28	2.4	2.52	5	100	1	564	45	1.0
MMSZ2V7	2V7Z	2.57	2.7	2.84	5	100	1	564	18	1.0
MMSZ3V0	3V0Z	2.85	3.0	3.15	5	100	1	564	9.0	1.0
MMSZ3V3	3V3Z	3.14	3.3	3.47	5	95	1	564	4.5	1.0
MMSZ3V6	3V6Z	3.42	3.6	3.78	5	90	1	564	4.5	1.0
MMSZ3V9	3V9Z	3.71	3.9	4.10	5	90	1	564	2.7	1.0
MMSZ4V3	4V3Z	4.09	4.3	4.52	5	90	1	564	2.7	1.0
MMSZ4V7	4V7Z	4.47	4.7	4.94	5	80	1	470	2.7	2.0
MMSZ5V1	5V1Z	4.85	5.1	5.36	5	60	1	451	1.8	2.0
MMSZ5V6	5V6Z	5.32	5.6	5.88	5	40	1	376	0.9	2.0
MMSZ6V2	6V2Z	5.89	6.2	6.51	5	10	1	141	2.7	4.0
MMSZ6V8	6V8Z	6.46	6.8	7.14	5	15	1	75	1.8	4.0
MMSZ7V5	7V5Z	7.11	7.5	7.86	5	15	1	75	0.9	5.0
MMSZ8V2	8V2Z	7.79	8.2	8.61	5	15	1	75	0.63	5.0
MMSZ9V1	9V1Z	8.65	9.1	9.56	5	15	1	94	0.45	6.0
MMSZ10V	10VZ	9.50	10	10.50	5	20	1	141	0.18	7.0
MMSZ11V	11VZ	10.45	11	11.55	5	20	1	141	0.09	8.0
MMSZ12V	12VZ	11.40	12	12.60	5	25	1	141	0.09	8.0
MMSZ13V	13VZ	12.35	13	13.65	5	30	1	160	0.09	8.0
MMSZ15V	15VZ	14.25	15	15.75	5	30	1	188	0.045	10.5
MMSZ16V	16VZ	15.20	16	16.80	5	40	1	188	0.045	11.2
MMSZ18V	18VZ	17.10	18	18.90	5	45	1	212	0.045	12.6
MMSZ20V	20VZ	19.00	20	21.00	5	55	1	212	0.045	14.0
MMSZ22V	22VZ	20.90	22	23.10	5	55	1	235	0.045	15.4
MMSZ24V	24VZ	22.80	24	25.20	5	70	1	235	0.045	16.8
MMSZ27V	27VZ	25.65	27	28.35	5	80	0.5	282	0.045	18.9
MMSZ30V	30VZ	28.50	30	31.50	5	80	0.5	282	0.045	21.0
MMSZ33V	33VZ	31.35	33	34.65	5	80	0.5	306	0.045	23.0
MMSZ36V	36VZ	34.20	36	37.80	5	90	0.5	329	0.045	25.2
MMSZ39V	39VZ	37.05	39	40.95	5	130	0.5	329	0.045	27.3
MMSZ43V	43VZ	40.85	43	45.15	5	150	0.5	353	0.045	30.1
MMSZ47V	47VZ	44.65	47	49.35	5	170	0.5	353	0.045	33.0
MMSZ51V	51VZ	48.45	51	53.55	5	180	0.5	376	0.045	35.7
MMSZ56V	56VZ	53.20	56	58.80	5	200	0.5	400	0.045	39.2
MMSZ62V	62VZ	58.90	62	65.10	5	215	0.5	423	0.045	43.4
MMSZ68V	68VZ	64.60	68	71.40	5	240	0.5	447	0.045	47.6
MMSZ75V	75VZ	71.25	75	78.75	5	255	0.5	470	0.045	52.5

NOTES:

1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Typical Characteristics

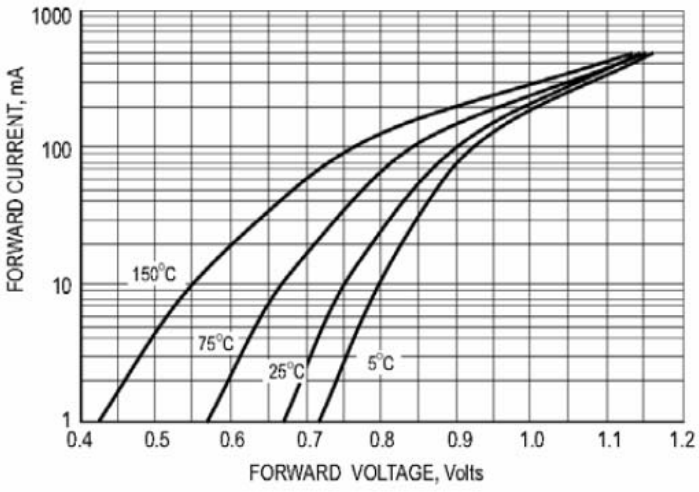


Fig.1 TYPICAL FORWARD VOLTAGE

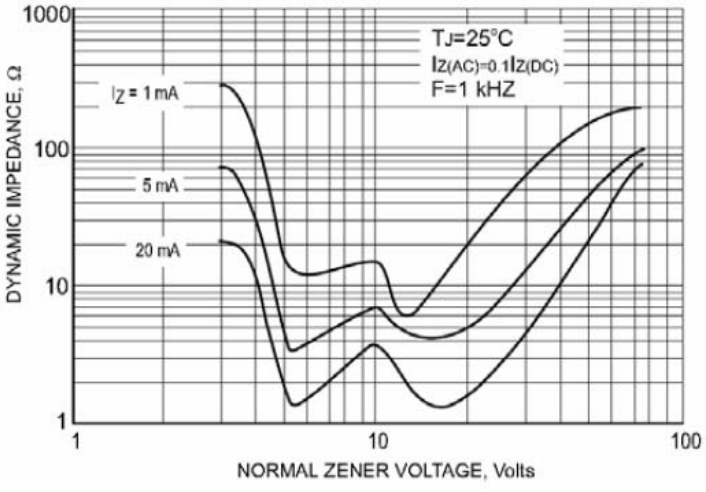


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

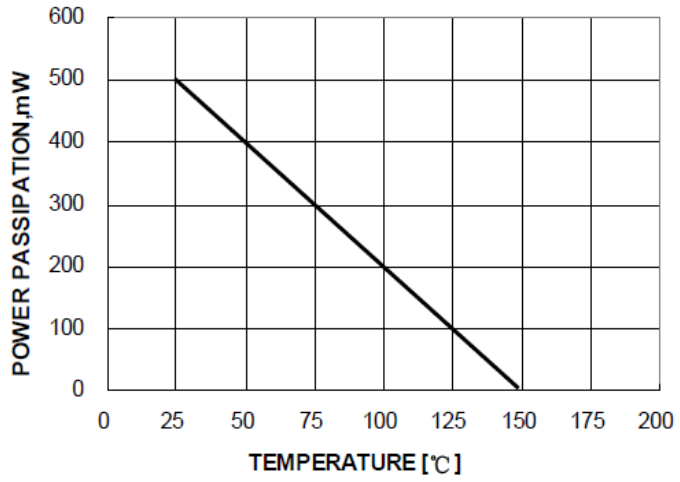


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

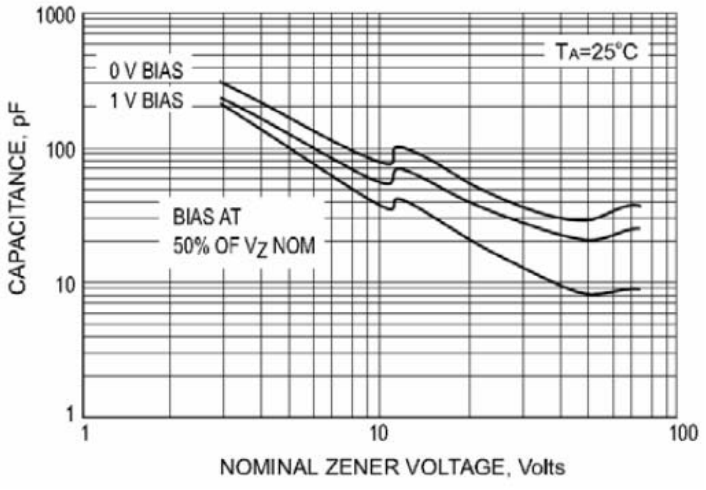


Fig.4 TYPICAL CAPACITANCE

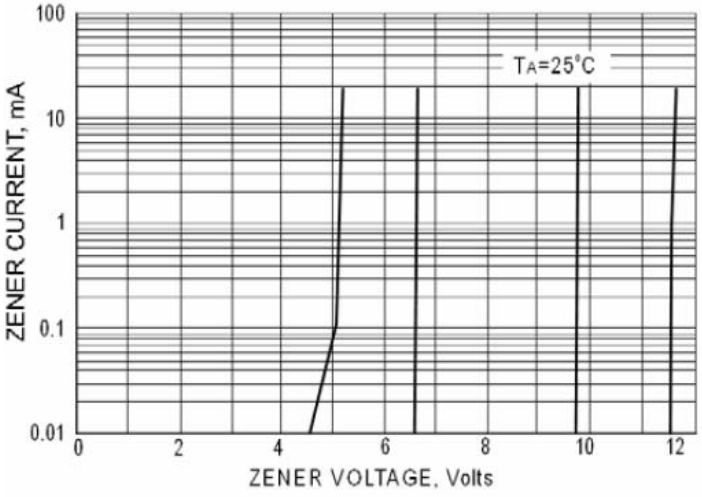


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

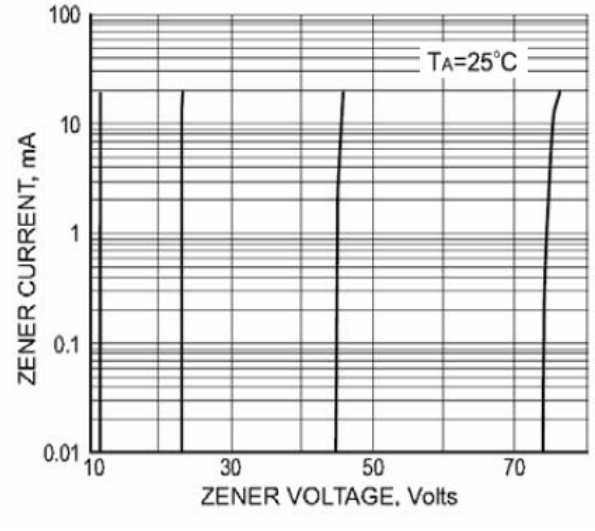


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

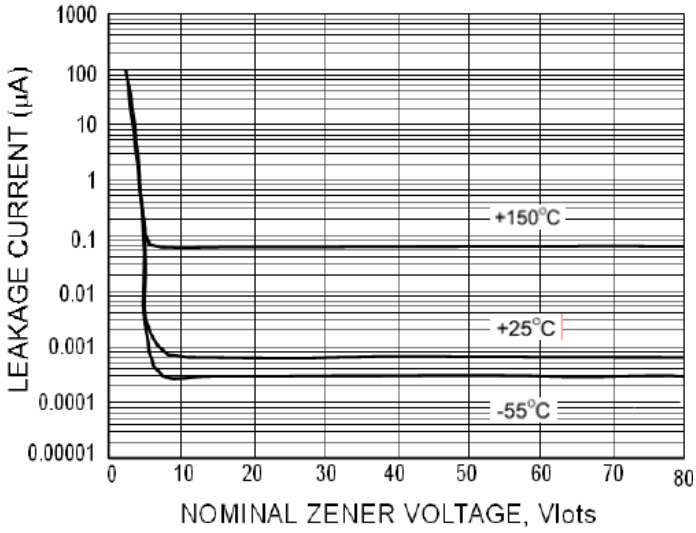


Fig.7 TYPICAL LEAKGE CURRENT