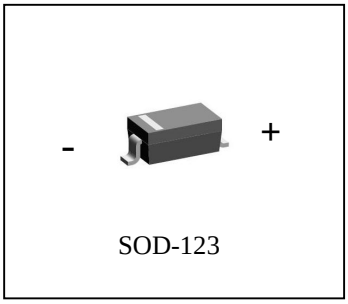
MMSZ2V4-75V

500mW SOD-123 SURFACE MOUNT
Flat Lead Surface Mount Plastic Package
Zener Voltage Regulators



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_{OPR}	Operating Temperature Range	-65 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts)			I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_{ZK} (mA)	Z_{ZK} @ I_{ZK} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
	Min	Nom	Max						
MMSZ2V4	2.35	2.4	2.45	5	100	1	564	45	1
MMSZ2V7	2.65	2.7	2.75	5	100	1	564	18	1
MMSZ3V0	2.94	3.0	3.06	5	100	1	564	9	1
MMSZ3V3	3.23	3.3	3.37	5	95	1	564	4.5	1
MMSZ3V6	3.53	3.6	3.67	5	90	1	564	4.5	1
MMSZ3V9	3.82	3.9	3.98	5	90	1	564	2.7	1
MMSZ4V3	4.21	4.3	4.39	5	90	1	564	2.7	1
MMSZ4V7	4.61	4.7	4.79	5	80	1	470	2.7	2
MMSZ5V1	5.00	5.1	5.20	5	60	1	451	1.8	2
MMSZ5V6	5.49	5.6	5.71	5	40	1	376	0.9	2
MMSZ6V2	6.08	6.2	6.32	5	10	1	141	2.7	4
MMSZ6V8	6.66	6.8	6.94	5	15	1	75	1.8	4
MMSZ7V5	7.35	7.5	7.65	5	15	1	75	0.9	5
MMSZ8V2	8.04	8.2	8.36	5	15	1	75	0.63	5
MMSZ9V1	8.92	9.1	9.28	5	15	1	94	0.45	6
MMSZ10V	9.80	10	10.20	5	20	1	141	0.18	7
MMSZ11V	10.78	11	11.22	5	20	1	141	0.09	8
MMSZ12V	11.76	12	12.24	5	25	1	141	0.09	8
MMSZ13V	12.74	13	13.26	5	30	1	160	0.09	8
MMSZ15V	14.70	15	15.30	5	30	1	188	0.045	10.5
MMSZ16V	15.68	16	16.32	5	40	1	188	0.045	11.2
MMSZ18V	17.64	18	18.36	5	45	1	212	0.045	12.6

MMSZ2V4-75V

Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts)			I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_{ZK} (mA)	Z_{ZK} @ I_{ZK} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
	Min	Nom	Max						
MMSZ20V	19.60	20	20.40	5	55	1	212	0.045	14.0
MMSZ22V	21.56	22	22.44	5	55	1	235	0.045	15.4
MMSZ24V	23.52	24	24.48	5	70	1	235	0.045	16.8
MMSZ27V	26.46	27	27.54	2	80	0.5	282	0.045	18.9
MMSZ30V	29.40	30	30.60	2	80	0.5	282	0.045	21.0
MMSZ33V	32.34	33	33.66	2	80	0.5	306	0.045	23.0
MMSZ36V	35.28	36	36.72	2	90	0.5	329	0.045	25.2
MMSZ39V	38.22	39	39.78	2	130	0.5	329	0.045	27.3
MMSZ43V	42.14	43	43.86	2	150	0.5	353	0.045	30.1
MMSZ47V	46.06	47	47.94	2	170	0.5	353	0.045	33.0
MMSZ51V	49.98	51	52.02	2	180	0.5	376	0.045	35.7
MMSZ56V	54.88	56	57.12	2	200	0.5	400	0.045	39.2
MMSZ62V	60.76	62	63.24	2	215	0.5	423	0.045	43.4
MMSZ68V	66.64	68	69.36	2	240	0.5	447	0.045	47.6
MMSZ75V	73.50	75	76.50	2	255	0.5	470	0.045	52.5

V_F Forward Voltage = 900mV Maximum @ I_F = 10 mA for all types

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 ±2%.
3. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
4. 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}.

RATING AND CHARACTERISTIC CURVES

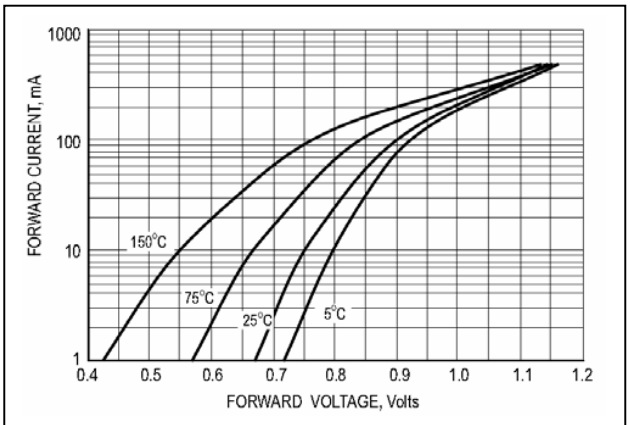


Fig.1 TYPICAL FORWARD VOLTAGE

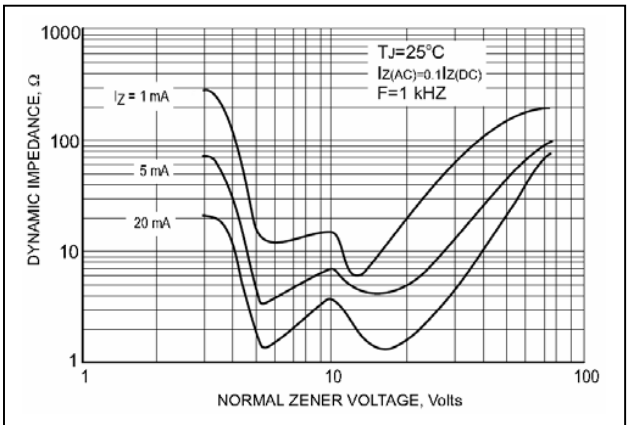


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

MMSZ2V4-75V

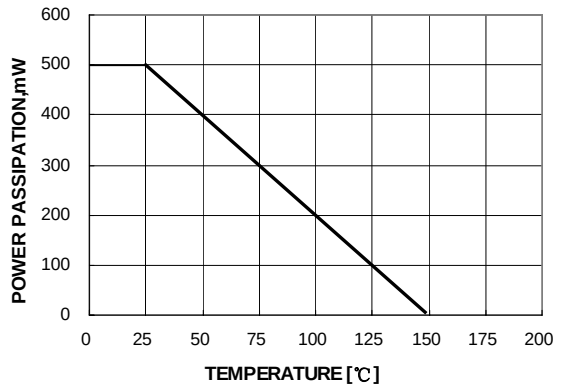


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

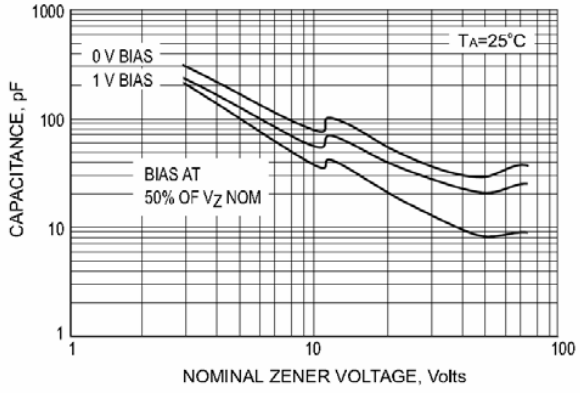


Fig.4 TYPICAL CAPACITANCE

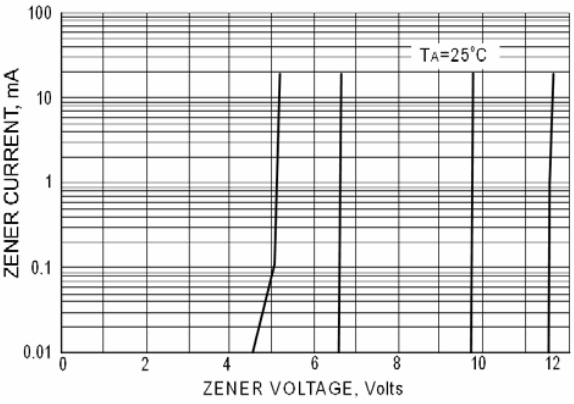


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

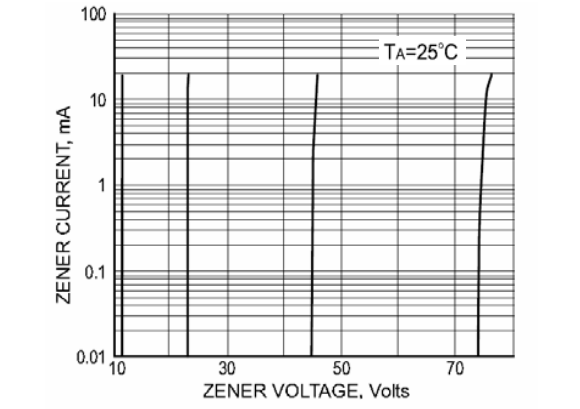


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

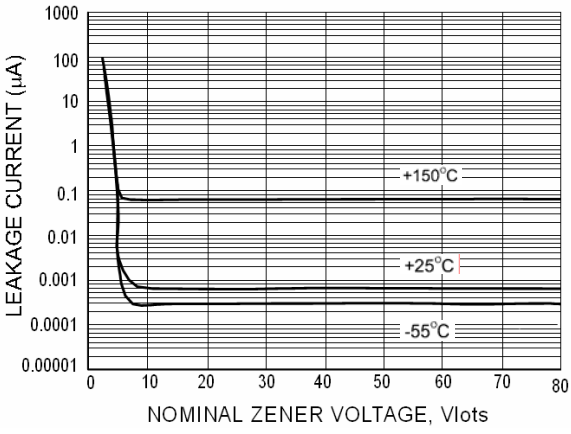


Fig.7 TYPICAL LEAKGE CURRENT