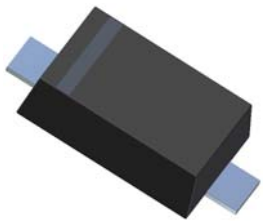
TAK CHEONG®

SEMICONDUCTOR

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

Green Product



SOD-123 Flat Lead

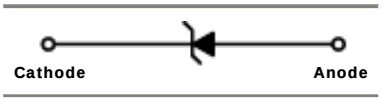
Absolute Maximum Ratings
T_A = 25°C unless otherwise noted

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, 2.0V to 75V
- VZ Tolerance Selection of ±2% (B Series)
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



ELECTRICAL SYMBOL

Electrical Characteristics
T_A = 25°C unless otherwise noted

Device Type	Device Marking	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						
MMSZ2V0BW	2V0B	1.95	2.0	2.05	5	100	1	564	120	0.5
MMSZ2V2BW	2V2B	2.14	2.2	2.26	5	100	1	564	120	0.7
MMSZ2V4BW	2V4B	2.35	2.4	2.45	5	100	1	564	45	1
MMSZ2V7BW	2V7B	2.65	2.7	2.75	5	100	1	564	18	1
MMSZ3V0BW	3V0B	2.94	3.0	3.06	5	100	1	564	9	1
MMSZ3V3BW	3V3B	3.23	3.3	3.37	5	95	1	564	4.5	1
MMSZ3V6BW	3V6B	3.53	3.6	3.67	5	90	1	564	4.5	1
MMSZ3V9BW	3V9B	3.82	3.9	3.98	5	90	1	564	2.7	1
MMSZ4V3BW	4V3B	4.21	4.3	4.39	5	90	1	564	2.7	1
MMSZ4V7BW	4V7B	4.61	4.7	4.79	5	80	1	470	2.7	2
MMSZ5V1BW	5V1B	5.00	5.1	5.20	5	60	1	451	1.8	2
MMSZ5V6BW	5V6B	5.49	5.6	5.71	5	40	1	376	0.9	2
MMSZ6V2BW	6V2B	6.08	6.2	6.32	5	10	1	141	2.7	4
MMSZ6V8BW	6V8B	6.66	6.8	6.94	5	15	1	75	1.8	4
MMSZ7V5BW	7V5B	7.35	7.5	7.65	5	15	1	75	0.9	5
MMSZ8V2BW	8V2B	8.04	8.2	8.36	5	15	1	75	0.63	5
MMSZ9V1BW	9V1B	8.92	9.1	9.28	5	15	1	94	0.45	6
MMSZ10VBW	10VB	9.80	10	10.20	5	20	1	141	0.18	7
MMSZ11VBW	11VB	10.78	11	11.22	5	20	1	141	0.09	8
MMSZ12VBW	12VB	11.76	12	12.24	5	25	1	141	0.09	8
MMSZ13VBW	13VB	12.74	13	13.26	5	30	1	160	0.09	8
MMSZ15VBW	15VB	14.70	15	15.30	5	30	1	188	0.045	10.5

Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	Device Marking	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						
MMSZ16VBW	16VB	15.68	16	16.32	5	40	1	188	0.045	11.2
MMSZ18VBW	18VB	17.64	18	18.36	5	45	1	212	0.045	12.6
MMSZ20VBW	20VB	19.60	20	20.40	5	55	1	212	0.045	14.0
MMSZ22VBW	22VB	21.56	22	22.44	5	55	1	235	0.045	15.4
MMSZ24VBW	24VB	23.52	24	24.48	5	70	1	235	0.045	16.8
MMSZ27VBW	27VB	26.46	27	27.54	2	80	0.5	282	0.045	18.9
MMSZ30VBW	30VB	29.40	30	30.60	2	80	0.5	282	0.045	21.0
MMSZ33VBW	33VB	32.34	33	33.66	2	80	0.5	306	0.045	23.0
MMSZ36VBW	36VB	35.28	36	36.72	2	90	0.5	329	0.045	25.2
MMSZ39VBW	39VB	38.22	39	39.78	2	130	0.5	329	0.045	27.3
MMSZ43VBW	43VB	42.14	43	43.86	2	150	0.5	353	0.045	30.1
MMSZ47VBW	47VB	46.06	47	47.94	2	170	0.5	353	0.045	33.0
MMSZ51VBW	51VB	49.98	51	52.02	2	180	0.5	376	0.045	35.7
MMSZ56VBW	56VB	54.88	56	57.12	2	200	0.5	400	0.045	39.2
MMSZ62VBW	62VB	60.76	62	63.24	2	215	0.5	423	0.045	43.4
MMSZ68VBW	68VB	66.64	68	69.36	2	240	0.5	447	0.045	47.6
MMSZ75VBW	75VB	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

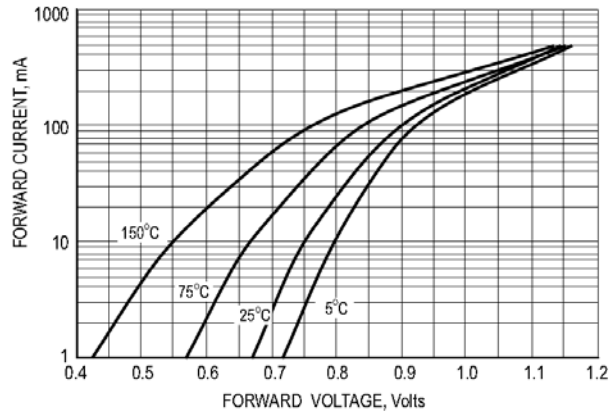


Fig.1 TYPICAL FORWARD VOLTAGE

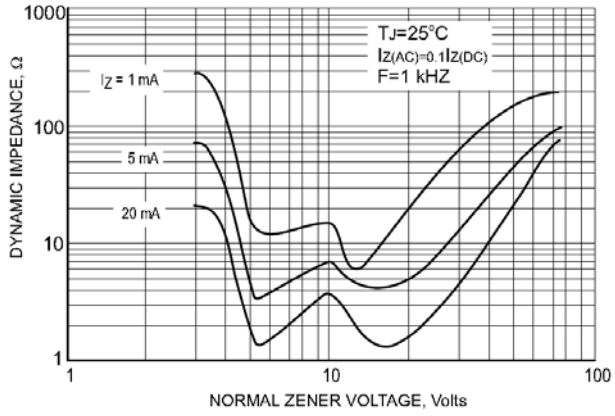


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

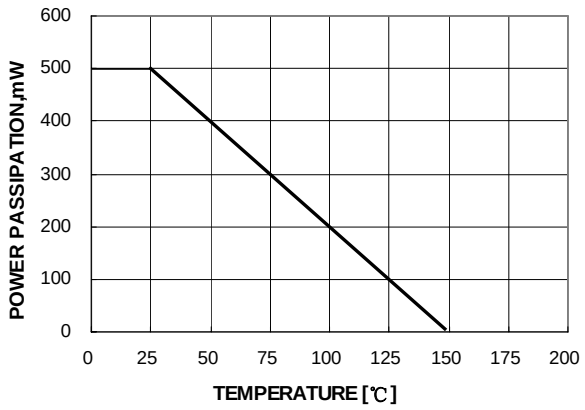


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

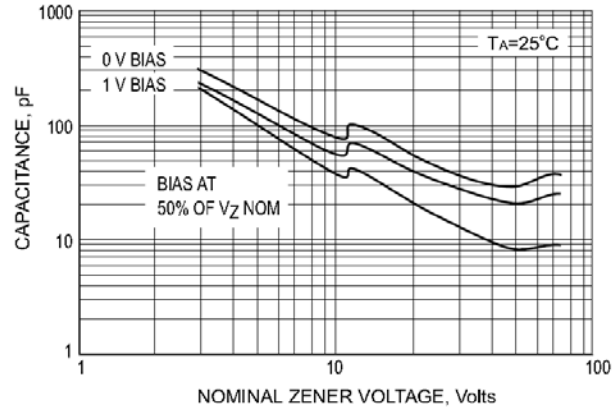


Fig.4 TYPICAL CAPACITANCE

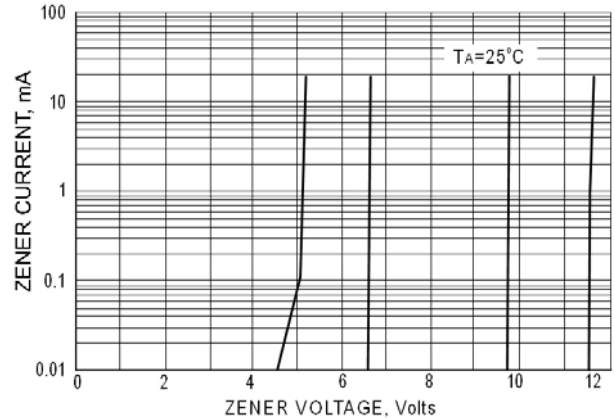


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

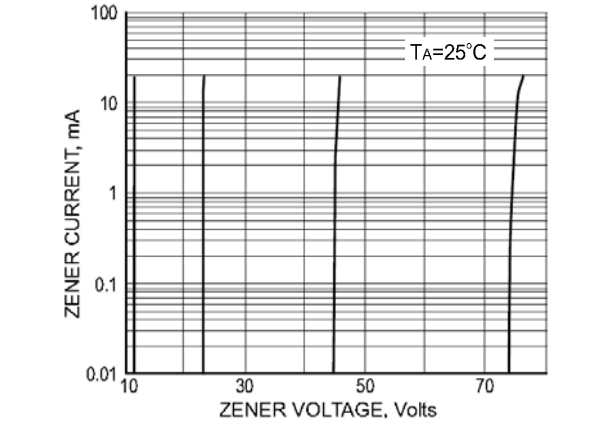


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

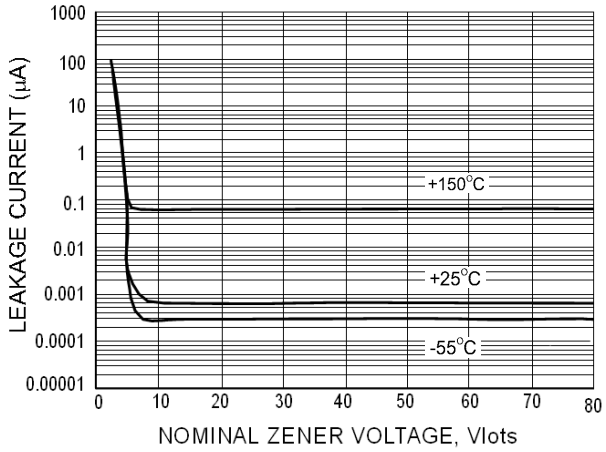
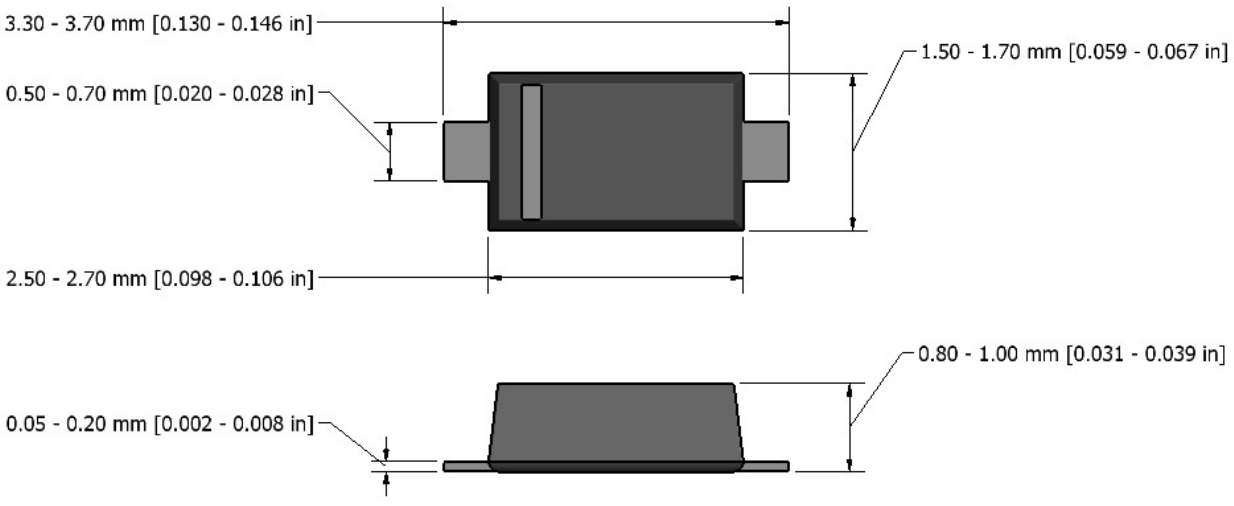


Fig.7 TYPICAL LEAKGE CURRENT

Flat Lead SOD-123 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damagers resulting from such improper use of sale.

This publication supersedes & replaces all information reviously supplied. For additional information, please visit our website http://www.takcheong.com, or consult your nearest Tak Cheong's sales office for further assistance.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Zener Diodes ***category:***

Click to view products by Tak Cheong ***manufacturer:***

Other Similar products are found below :

RKZ13B2KG#P1 DL5234B EDZTE6113B 1N4682 1N4691 1N4693 1N4732A 1N4736A 1N4750A 1N4759ARL 1N5241B 1N5365B 1N5369B 1N747A 1N959B 1N964B 1N966B 1N968B 1N972B NTE5121A NTE5147A NTE5152A NTE5155A NTE5164A JANS1N4974US 1N4692 1N4700 1N4702 1N4704 1N4711 1N4714 1N4737A 1N4745ARL 1N4752A 1N4752ARL 1N4760ARL 1N5221B 1N5236B 1N5241BTR 1N5242BTR 1N5350B 1N5352B 1N961BRR1 1N964BRL RKZ5.1BKU#P6 3SMAJ5946B-TP 3SMAJ5950B-TP 3SMBJ5925B-TP 441774C BZX84C3V9