

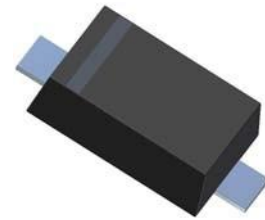
Flat Lead Surface Mount Plastic Package Zener Voltage Regulators

Green Product

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

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

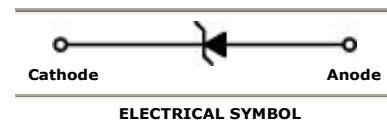
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-123 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.0V to 75V
- VZ Tolerance Selection of $\pm 5\%$ (C Series)
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



Electrical Characteristics $T_A = 25^\circ\text{C}$ 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						
MMSZ2V0C	2V0Z	1.90	2.0	2.10	5	100	1	564	120	0.5
MMSZ2V2C	2V2Z	2.09	2.2	2.31	5	100	1	564	120	0.7
MMSZ2V4C	2V4Z	2.28	2.4	2.52	5	100	1	564	45	1
MMSZ2V7C	2V7Z	2.57	2.7	2.84	5	100	1	564	18	1
MMSZ3V0C	3V0Z	2.85	3.0	3.15	5	100	1	564	9	1
MMSZ3V3C	3V3Z	3.14	3.3	3.47	5	95	1	564	4.5	1
MMSZ3V6C	3V6Z	3.42	3.6	3.78	5	90	1	564	4.5	1
MMSZ3V9C	3V9Z	3.71	3.9	4.10	5	90	1	564	2.7	1
MMSZ4V3C	4V3Z	4.09	4.3	4.52	5	90	1	564	2.7	1
MMSZ4V7C	4V7Z	4.47	4.7	4.94	5	80	1	470	2.7	2
MMSZ5V1C	5V1Z	4.85	5.1	5.36	5	60	1	451	1.8	2
MMSZ5V6C	5V6Z	5.32	5.6	5.88	5	40	1	376	0.9	2
MMSZ6V2C	6V2Z	5.89	6.2	6.51	5	10	1	141	2.7	4
MMSZ6V8C	6V8Z	6.46	6.8	7.14	5	15	1	75	1.8	4
MMSZ7V5C	7V5Z	7.11	7.5	7.86	5	15	1	75	0.9	5
MMSZ8V2C	8V2Z	7.79	8.2	8.61	5	15	1	75	0.63	5
MMSZ9V1C	9V1Z	8.65	9.1	9.56	5	15	1	94	0.45	6
MMSZ10VC	10VZ	9.50	10	10.50	5	20	1	141	0.18	7
MMSZ11VC	11VZ	10.45	11	11.55	5	20	1	141	0.09	8
MMSZ12VC	12VZ	11.40	12	12.60	5	25	1	141	0.09	8
MMSZ13VC	13VZ	12.35	13	13.65	5	30	1	160	0.09	8

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

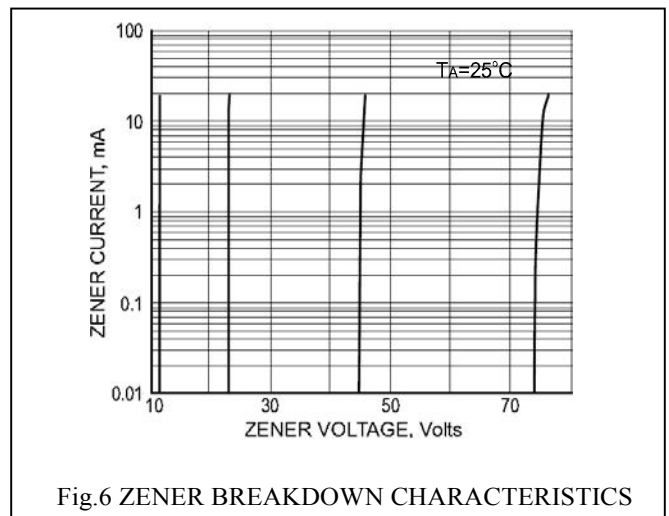
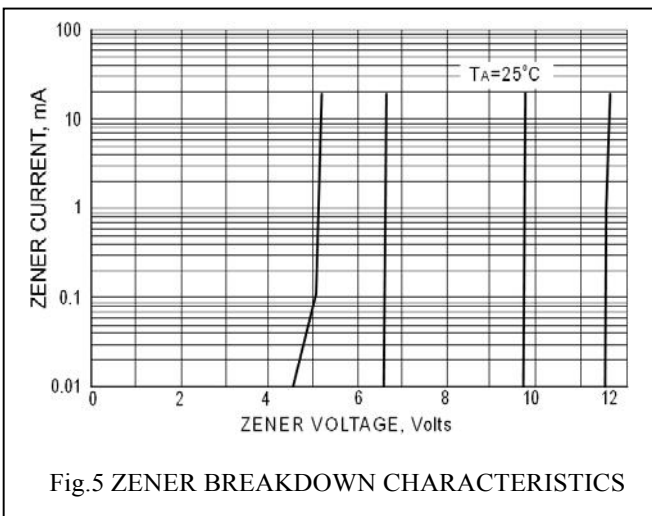
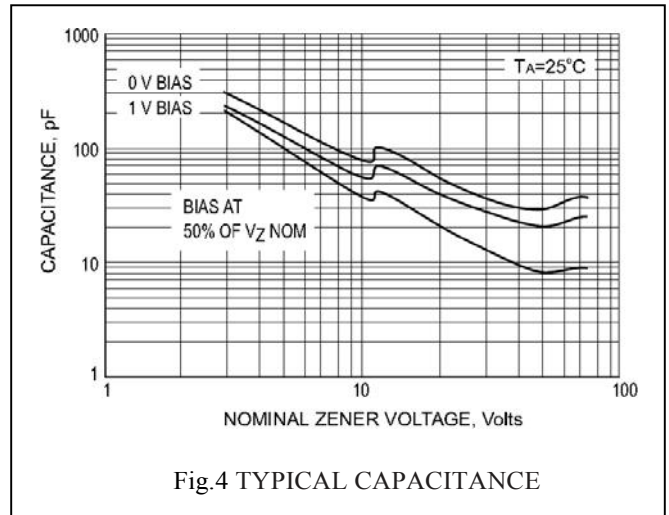
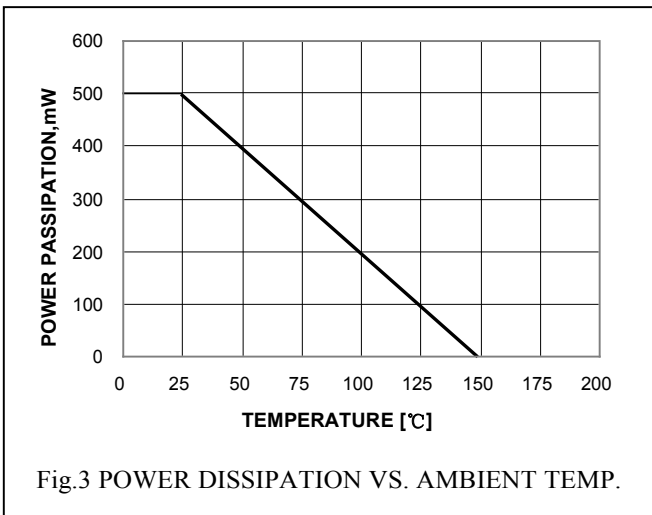
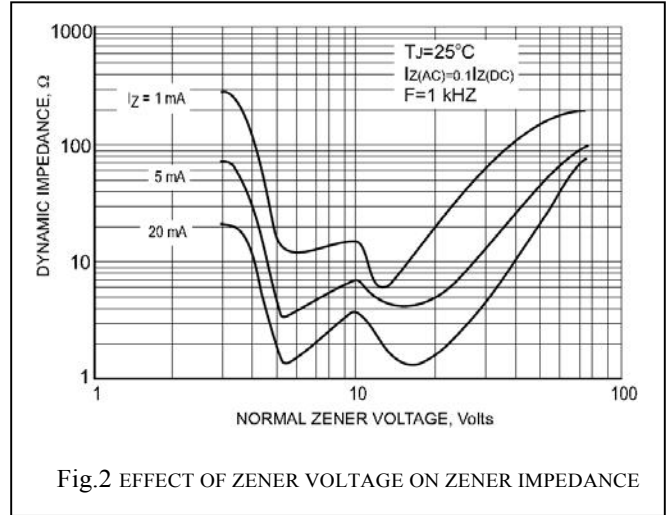
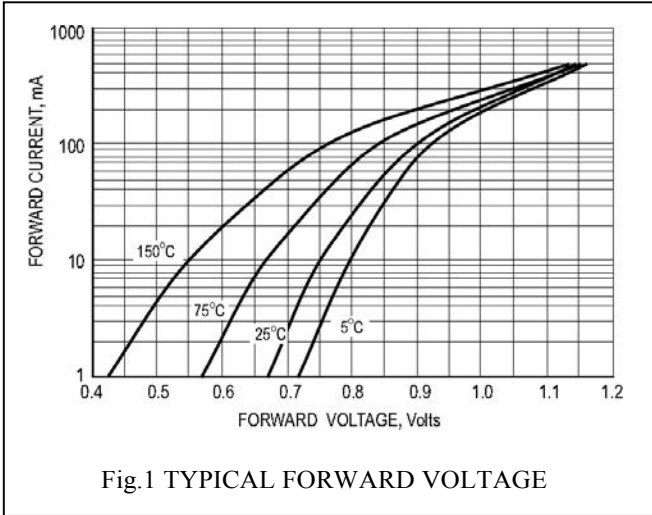
Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
MMSZ15VC	15VZ	14.25	15	15.75	5	30	1	188	0.045	10.5
MMSZ16VC	16VZ	15.20	16	16.80	5	40	1	188	0.045	11.2
MMSZ18VC	18VZ	17.10	18	18.90	5	45	1	212	0.045	12.6
MMSZ20VC	20VZ	19.00	20	21.00	5	55	1	212	0.045	14.0
MMSZ22VC	22VZ	20.90	22	23.10	5	55	1	235	0.045	15.4
MMSZ24VC	24VZ	22.80	24	25.20	5	70	1	235	0.045	16.8
MMSZ27VC	27VZ	25.65	27	28.35	2	80	0.5	282	0.045	18.9
MMSZ30VC	30VZ	28.50	30	31.50	2	80	0.5	282	0.045	21.0
MMSZ33VC	33VZ	31.35	33	34.65	2	80	0.5	306	0.045	23.0
MMSZ36VC	36VZ	34.20	36	37.80	2	90	0.5	329	0.045	25.2
MMSZ39VC	39VZ	37.05	39	40.95	2	130	0.5	329	0.045	27.3
MMSZ43VC	43VZ	40.85	43	45.15	2	150	0.5	353	0.045	30.1
MMSZ47VC	47VZ	44.65	47	49.35	2	170	0.5	353	0.045	33.0
MMSZ51VC	51VZ	48.45	51	53.55	2	180	0.5	376	0.045	35.7
MMSZ56VC	56VZ	53.20	56	58.80	2	200	0.5	400	0.045	39.2
MMSZ62VC	62VZ	58.90	62	65.10	2	215	0.5	423	0.045	43.4
MMSZ68VC	68VZ	64.60	68	71.40	2	240	0.5	447	0.045	47.6
MMSZ75VC	75VZ	71.25	75	78.75	2	255	0.5	470	0.045	52.5

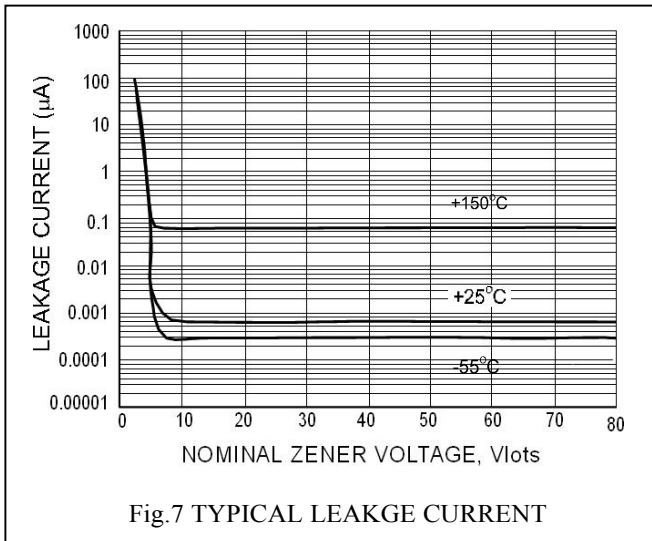
 V_F Forward Voltage = 900mV Maximum @ $I_F = 10$ mA for all types

Notes:

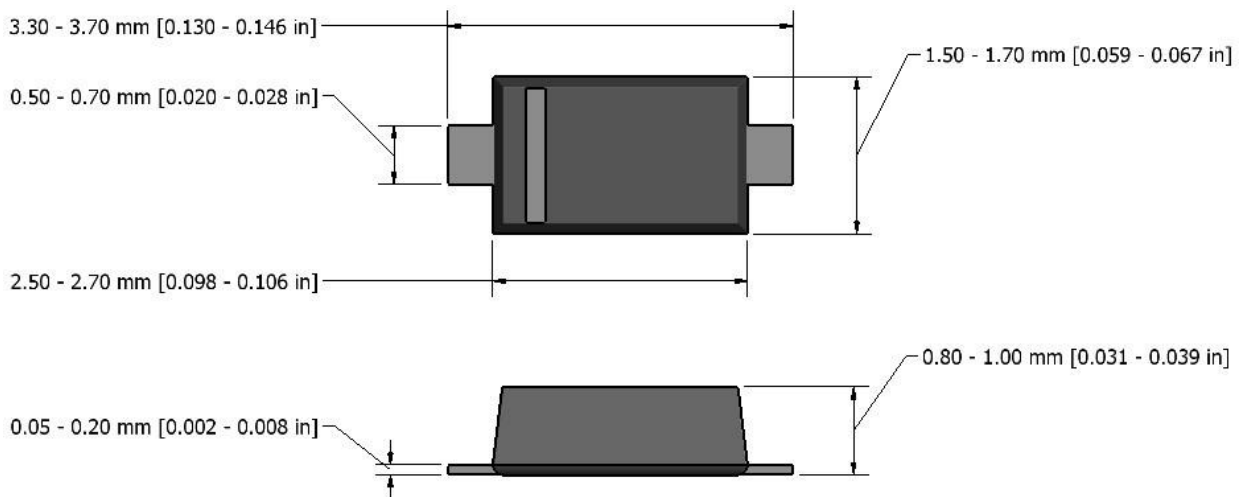
1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
3. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage 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





Flat Lead SOD-123 Package Outline



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

Website: <http://www.jksemi.com>

For additional information, please contact your local Sales Representative.

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