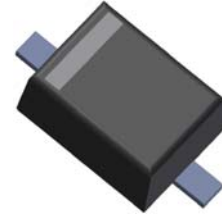


Small Outline Flat Lead Plastic Package Zener Voltage Regulators

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

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	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-323 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- VZ Tolerance Selection of $\pm 5\%$ (C Series)
- Flat Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Compliant to Halogen-free.
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



ELECTRICAL SYMBOL

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						
MM3Z2V4CW	2v4/ Z0	2.28	2.4	2.52	5	100	1	564	45	1
MM3Z2V7CW	2v7/ Z1	2.57	2.7	2.84	5	100	1	564	18	1
MM3Z3V0CW	3v0/ Z2	2.85	3.0	3.15	5	100	1	564	9	1
MM3Z3V3CW	3v3/ Z3	3.14	3.3	3.47	5	95	1	564	4.5	1
MM3Z3V6CW	3v6/ Z4	3.42	3.6	3.78	5	90	1	564	4.5	1
MM3Z3V9CW	3v9/ Z5	3.71	3.9	4.10	5	90	1	564	2.7	1
MM3Z4V3CW	4v3/ Z6	4.09	4.3	4.52	5	90	1	564	2.7	1
MM3Z4V7CW	4v7/ Z7	4.47	4.7	4.94	5	80	1	470	2.7	2
MM3Z5V1CW	5v1/ Z8	4.85	5.1	5.36	5	60	1	451	1.8	2
MM3Z5V6CW	5v6/ Z9	5.32	5.6	5.88	5	40	1	376	0.9	2
MM3Z6V2CW	6v2/ ZA	5.89	6.2	6.51	5	10	1	141	2.7	4
MM3Z6V8CW	6v8/ ZB	6.46	6.8	7.14	5	15	1	75	1.8	4
MM3Z7V5CW	7v5/ ZC	7.11	7.5	7.86	5	15	1	75	0.9	5
MM3Z8V2CW	8v2/ ZD	7.79	8.2	8.61	5	15	1	75	0.63	5
MM3Z9V1CW	9v1/ ZE	8.65	9.1	9.56	5	15	1	94	0.45	6
MM3Z10VCW	10/ ZF	9.50	10	10.50	5	20	1	141	0.18	7
MM3Z11VCW	11/ ZG	10.45	11	11.55	5	20	1	141	0.09	8
MM3Z12VCW	12/ ZH	11.40	12	12.60	5	25	1	141	0.09	8
MM3Z13VCW	13/ ZJ	12.35	13	13.65	5	30	1	160	0.09	8
MM3Z15VCW	15/ ZK	14.25	15	15.75	5	30	1	188	0.045	10.5

Small Outline Flat Lead Plastic Package Zener Voltage Regulators

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						
MM3Z16VCW	16/ZL	15.20	16	16.80	5	40	1	188	0.045	11.2
MM3Z18VCW	18/ZM	17.10	18	18.90	5	45	1	212	0.045	12.6
MM3Z20VCW	20/ZN	19.00	20	21.00	5	55	1	212	0.045	14.0
MM3Z22VCW	22/ZP	20.90	22	23.10	5	55	1	235	0.045	15.4
MM3Z24VCW	24/ZR	22.80	24	25.20	5	70	1	235	0.045	16.8
MM3Z27VCW	27/ZS	25.65	27	28.35	2	80	0.5	282	0.045	18.9
MM3Z30VCW	30/ZT	28.50	30	31.50	2	80	0.5	282	0.045	21.0
MM3Z33VCW	33/ZU	31.35	33	34.65	2	80	0.5	306	0.045	23.0
MM3Z36VCW	36/ZV	34.20	36	37.80	2	90	0.5	329	0.045	25.2
MM3Z39VCW	39/ZW	37.05	39	40.95	2	130	0.5	329	0.045	27.3
MM3Z43VCW	43/ZX	40.85	43	45.15	2	150	0.5	353	0.045	30.1
MM3Z47VCW	47/ZY	44.65	47	49.35	2	170	0.5	353	0.045	33.0
MM3Z51VCW	51/Z-	48.45	51	53.55	2	180	0.5	376	0.045	35.7
MM3Z56VCW	56/Z=	53.20	56	58.80	2	200	0.5	400	0.045	39.2
MM3Z62VCW	62/Z≡	58.90	62	65.10	2	215	0.5	423	0.045	43.4
MM3Z68VCW	68/Z>	64.60	68	71.40	2	240	0.5	447	0.045	47.6
MM3Z75VCW	75/Z<	71.25	75	78.75	2	255	0.5	470	0.045	52.5

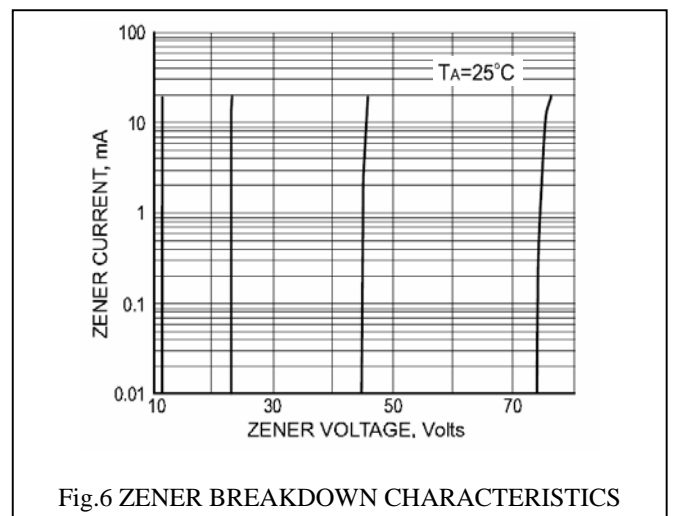
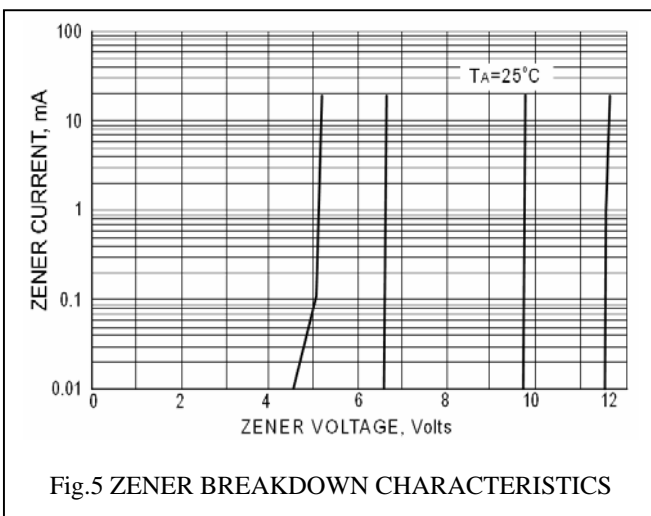
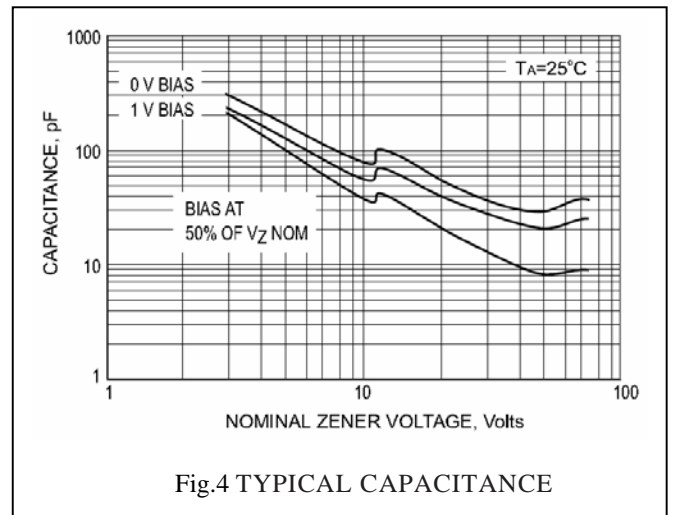
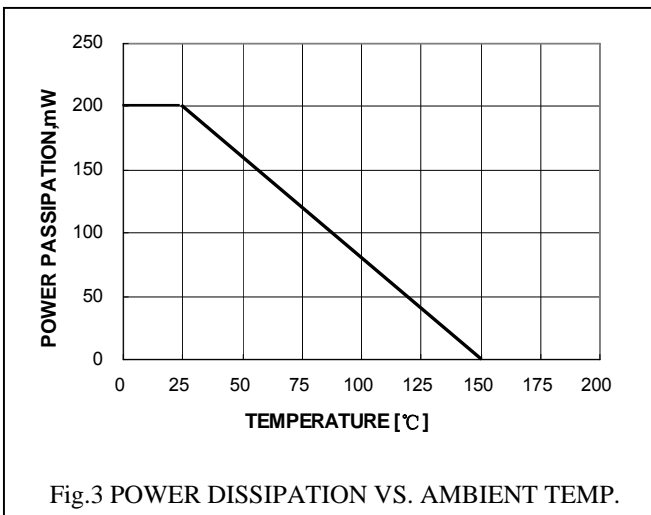
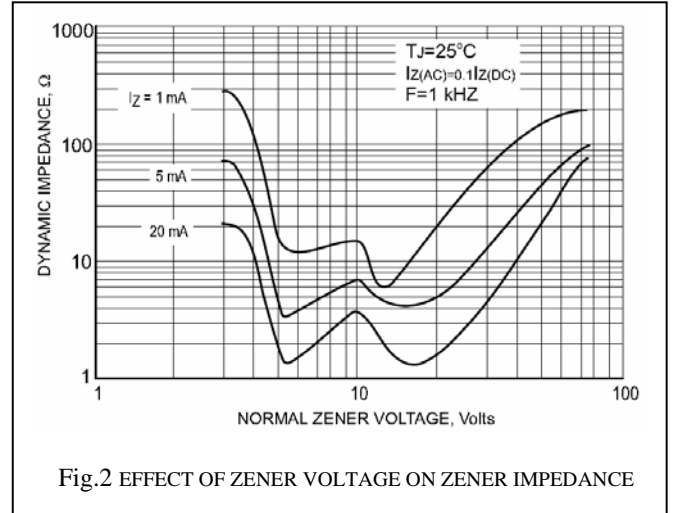
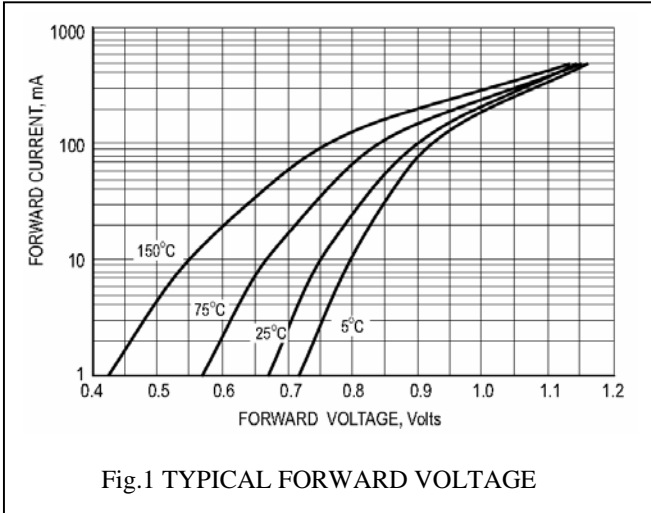
V_F Forward Voltage = 1 V Maximum @ I_F = 10 mA for all types

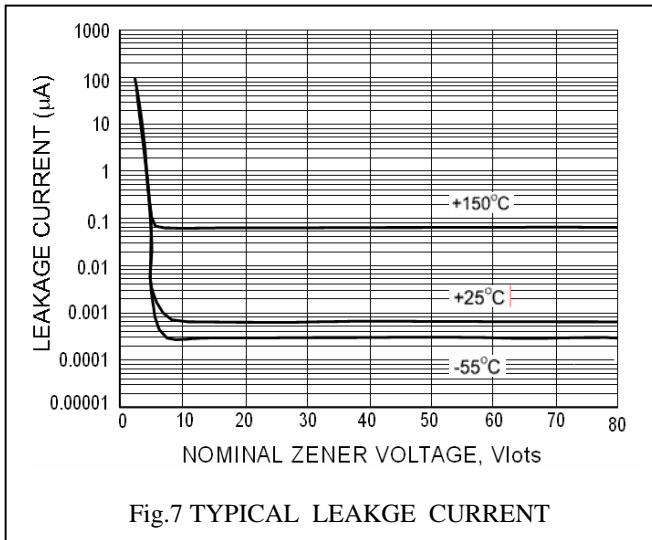
Notes:

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 ±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}.

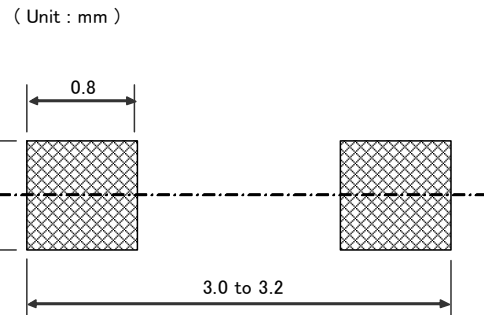
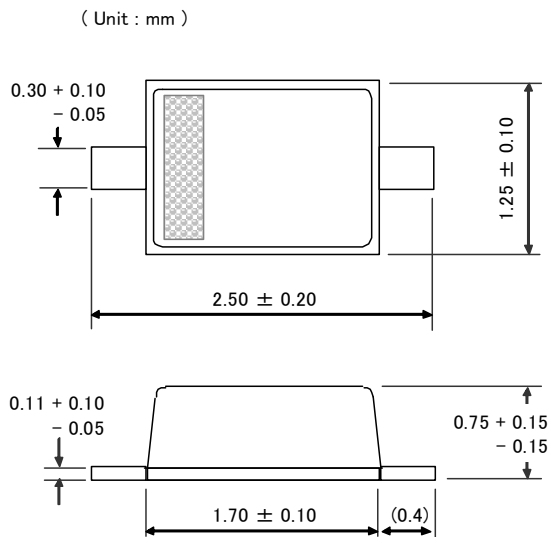
**Small Outline Flat Lead Plastic Package
Zener Voltage Regulators**

RATING AND CHARACTERISTIC CURVES





SOD-323 Package Outline



Land Pattern Recommendation

Notes:
 * Dimensions of POPPULA
 (JEDEC/JEITA: SOD-323/SC-90)

NOTES:
 1. The above package outline is similar to JEITA SC-90.