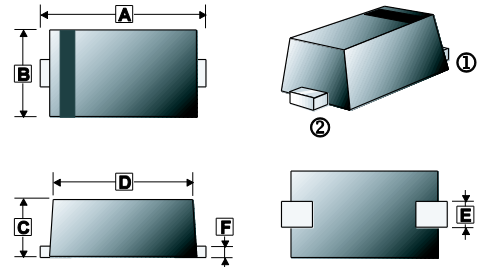


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Wide Zener Voltage Range Selection, 3.0V to 75V
- V_Z Tolerance Selection of $\pm 5\%$
- Flat Lead SOD-323L Small Outline Plastic Package
- Surface Device Type Mounting
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

SOD-323L



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.30	2.70	D	1.60	1.80
B	1.15	1.35	E	0.25	0.40
C	0.80	1.10	F	0.05	0.25

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323L	3K	7 inch



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	200	mW
Operating and Storage Temperature Range	T_J, T_{STG}	-65~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified, $V_F=900\text{mV}$ Maximum@ $I_F=10\text{mA}$)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$ $\approx 0.25\text{mA}$	I_{ZK}	$I_R@V_R$	
		Min(V)	Nom(V)	Max(V)	mA	Ω	Ω	mA	μA	V
MTSZ5221BWS	Z2V4	2.28	2.4	2.52	20	30	1200	0.25	100	1
MTSZ5222BWS	Z2V5	2.38	2.5	2.63	20	30	1250	0.25	100	1
MTSZ5223BWS	Z2V7	2.57	2.7	2.84	20	30	1300	0.25	75	1
MTSZ5224BWS	Z2V8	2.66	2.8	2.94	20	30	1400	0.25	75	1
MTSZ5225BWS	Z3V0	2.85	3	3.15	20	29	1600	0.25	50	1
MTSZ5226BWS	Z3V3	3.14	3.3	3.47	20	28	1600	0.25	25	1
MTSZ5227BWS	Z3V6	3.42	3.6	3.78	20	24	1700	0.25	15	1
MTSZ5228BWS	Z3V9	3.71	3.9	4.10	20	23	1900	0.25	10	1
MTSZ5229BWS	Z4V3	4.09	4.3	4.52	20	22	2000	0.25	5	1
MTSZ5230BWS	Z4V7	4.47	4.7	4.94	20	19	1900	0.25	5	2
MTSZ5231BWS	Z5V1	4.85	5.1	5.36	20	17	1600	0.25	5	2
MTSZ5232BWS	Z5V6	5.32	5.6	5.88	20	11	1600	0.25	5	3
MTSZ5233BWS	Z6V0	5.70	6	6.30	20	7	1600	0.25	5	3.5
MTSZ5234BWS	Z6V2	5.89	6.2	6.51	20	7	1000	0.25	5	4
MTSZ5235BWS	Z6V8	6.46	6.8	7.14	20	5	750	0.25	3	5
MTSZ5236BWS	Z7V5	7.13	7.5	7.88	20	6	500	0.25	3	6
MTSZ5237BWS	Z8V2	7.79	8.2	8.61	20	8	500	0.25	3	6.5
MTSZ5238BWS	Z8V7	8.27	8.7	9.14	20	8	600	0.25	3	6.5
MTSZ5239BWS	Z9V1	8.65	9.1	9.56	20	10	600	0.25	3	7
MTSZ5240BWS	Z10V	9.50	10	10.50	20	17	600	0.25	3	8
MTSZ5241BWS	Z11V	10.45	11	11.55	20	22	600	0.25	2	8.4
MTSZ5242BWS	Z12V	11.40	12	12.60	20	30	600	0.25	1	9.1
MTSZ5243BWS	Z13V	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MTSZ5244BWS	Z14V	13.30	14	14.70	9	15	600	0.25	0.1	10
MTSZ5245BWS	Z15V	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MTSZ5246BWS	Z16V	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MTSZ5247BWS	Z17V	16.15	17	17.85	7.4	19	600	0.25	0.1	13
MTSZ5248BWS	Z18V	17.10	18	18.90	7	21	600	0.25	0.1	14
MTSZ5249BWS	Z19V	18.05	19	19.95	6.6	23	600	0.25	0.1	14
MTSZ5250BWS	Z20V	19.00	20	21.00	6.2	25	600	0.25	0.1	15

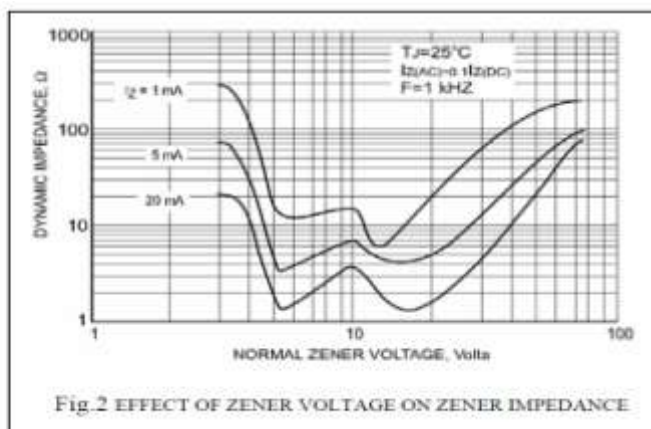
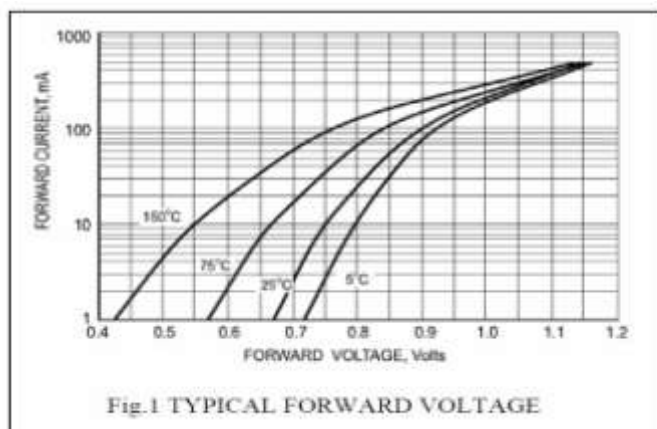
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified, $V_F=900\text{mV}$ Maximum@ $I_F=10\text{mA}$)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	$I_R@V_R$	
		Min(V)	Nom(V)	Max(V)	mA	Ω	Ω	mA	μA	V
MTSZ5251BWS	Z22V	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MTSZ5252BWS	Z24V	22.80	24	25.20	5.2	33	600	0.25	0.1	18
MTSZ5253BWS	Z25V	23.75	25	26.25	5	35	600	0.25	0.1	19
MTSZ5254BWS	Z27V	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MTSZ5255BWS	Z28V	26.60	28	29.40	4.5	44	600	0.25	0.1	21
MTSZ5256BWS	Z30V	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MTSZ5257BWS	Z33V	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MTSZ5258BWS	Z36V	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MTSZ5259BWS	Z39V	37.05	39	40.95	3.2	80	800	0.25	0.1	30
MTSZ5260BWS	Z43V	40.85	43	45.15	3	93	900	0.25	0.1	33
MTSZ5261BWS	Z47V	44.65	47	49.35	2.7	105	1000	0.25	0.1	36
MTSZ5262BWS	Z51V	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
MTSZ5263BWS	Z56V	53.20	56	58.80	2.2	150	1300	0.25	0.1	43
MTSZ5264BWS	Z60V	57.00	60	63.00	2.1	170	1400	0.25	0.1	46
MTSZ5265BWS	Z62V	58.90	62	65.10	2	185	1400	0.25	0.1	47
MTSZ5266BWS	Z68V	64.60	68	71.40	1.8	230	1600	0.25	0.1	52
MTSZ5267BWS	Z75V	71.25	75	78.75	1.7	270	1700	0.25	0.1	56

Notes:

1. The zener voltage (V_Z) is tested under pulse condition of 1mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
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} .

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

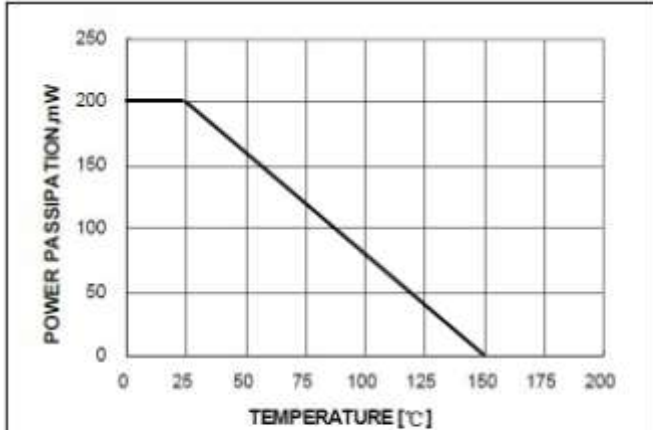


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

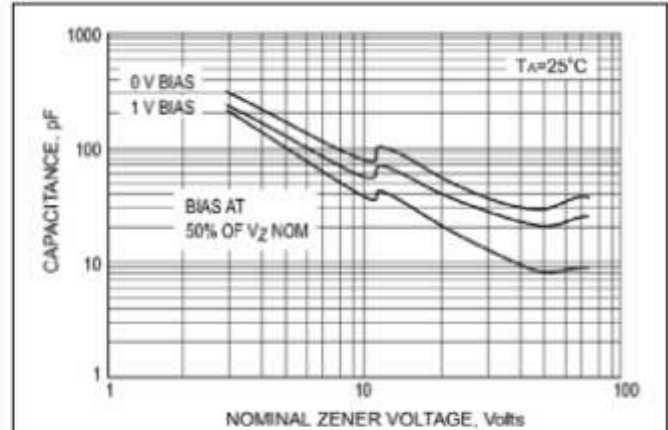


Fig.4 TYPICAL CAPACITANCE

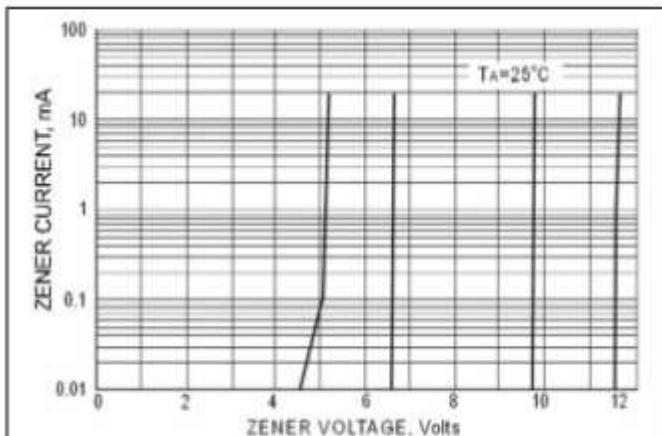


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

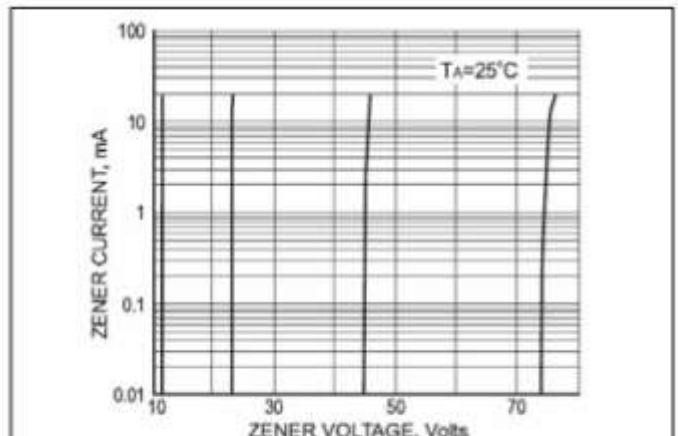


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

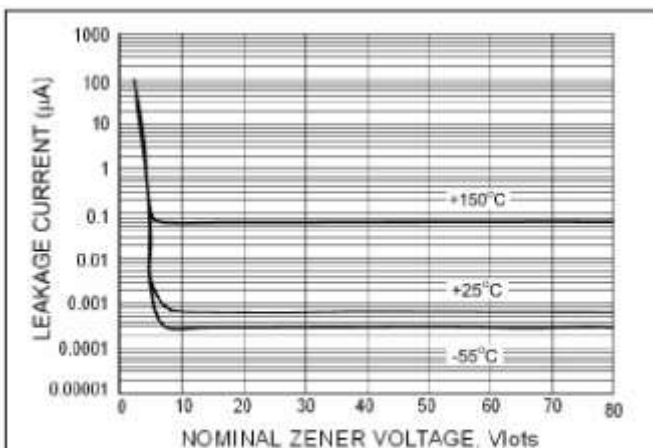


Fig.7 TYPICAL LEAKGE CURRENT