

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

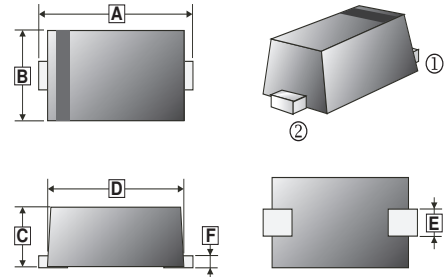
## FEATURES

- Wide Zener Voltage Range Selection, 2.4V to 75V
- Flat Lead SOD-523 Small Outline Plastic Package
- Extremely Small SOD-523 Package
- Surface Device Type Mounting
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

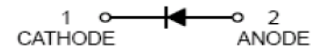
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

### SOD-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	D	1.10	1.30
B	0.70	0.90	E	0.25	0.35
C	0.50	0.77	F	0.07	0.20



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	200	mW
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150	°C

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified,  $V_F=1\text{V}$  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	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V
SBZX584B2V4	05	2.35	2.4	2.45	5	100	564	1	45	1
SBZX584B2V7	15	2.65	2.7	2.75	5	100	564	1	18	1
SBZX584B3V0	25	2.94	3	3.06	5	100	564	1	9	1
SBZX584B3V3	35	3.23	3.3	3.37	5	95	564	1	4.5	1
SBZX584B3V6	45	3.53	3.6	3.67	5	90	564	1	4.5	1
SBZX584B3V9	+5	3.82	3.9	3.98	5	90	564	1	2.7	1
SBZX584B4V3	65	4.21	4.3	4.39	5	90	564	1	2.7	1
SBZX584B4V7	75	4.61	4.7	4.79	5	80	470	1	2.7	2
SBZX584B5V1	85	5	5.1	5.2	5	60	451	1	1.8	2
SBZX584B5V6	95	5.49	5.6	5.71	5	40	376	1	0.9	2
SBZX584B6V2	A5	6.08	6.2	6.32	5	10	141	1	2.7	4
SBZX584B6V8	B5	6.66	6.8	6.94	5	15	75	1	1.8	4
SBZX584B7V5	C5	7.35	7.5	7.65	5	15	75	1	0.9	5
SBZX584B8V2	D5	8.04	8.2	8.36	5	15	75	1	0.63	5
SBZX584B9V1	E5	8.92	9.1	9.28	5	15	94	1	0.45	6
SBZX584B10V	F5	9.8	10	10.2	5	20	141	1	0.18	7
SBZX584B11V	G5	10.78	11	11.22	5	20	141	1	0.09	8
SBZX584B12V	H5	11.76	12	12.24	5	25	141	1	0.09	8
SBZX584B13V	J5	12.74	13	13.26	5	30	160	1	0.09	8
SBZX584B15V	K5	14.7	15	15.3	5	30	188	1	0.045	10.5
SBZX584B16V	L5	15.68	16	16.32	5	40	188	1	0.045	11.2
SBZX584B18V	M5	17.64	18	18.36	5	45	212	1	0.045	12.6
SBZX584B20V	N5	19.6	20	20.4	5	55	212	1	0.045	14
SBZX584B22V	P5	21.56	22	22.44	5	55	235	1	0.045	15.4
SBZX584B24V	R5	23.52	24	24.48	5	70	235	1	0.045	16.8
SBZX584B27V	S5	26.46	27	27.54	2	80	282	0.5	0.045	18.9
SBZX584B30V	T5	29.4	30	30.6	2	80	282	0.5	0.045	21
SBZX584B33V	U5	32.34	33	33.66	2	80	306	0.5	0.045	23
SBZX584B36V	V5	35.28	36	36.72	2	90	329	0.5	0.045	25.2
SBZX584B39V	X5	38.22	39	39.78	2	130	329	0.5	0.045	27.3
SBZX584B43V	Y5	42.14	43	43.86	2	150	353	0.5	0.045	30.1

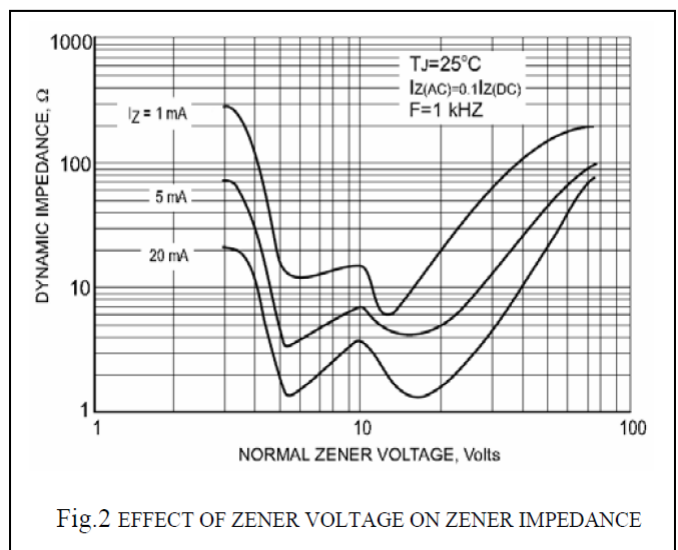
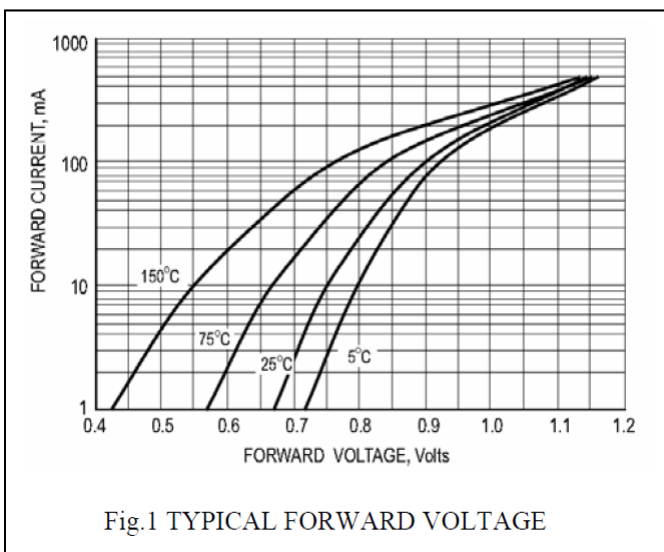
**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified,  $V_F=1\text{V}$  Maximum @  $I_F=10\text{mA}$ )

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	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V
SBZX584B47V	Z5	46.06	47	47.94	2	170	353	0.5	0.045	33
SBZX584B51V	-5	49.98	51	52.02	2	180	376	0.5	0.045	35.7
SBZX584B56V	=5	54.88	56	57.12	2	200	400	0.5	0.045	39.2
SBZX584B62V	≅5	60.76	62	63.24	2	215	423	0.5	0.045	43.4
SBZX584B68V	>5	66.64	68	69.36	2	240	447	0.5	0.045	47.6
SBZX584B75V	<5	73.5	75	76.5	2	255	470	0.5	0.0451	52.5

Notes:

1. The zener voltage ( $V_Z$ ) is tested under pulse condition of 10mS.
2. 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**



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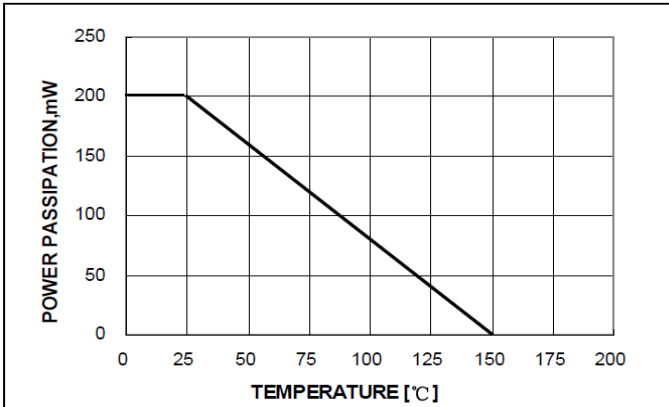


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

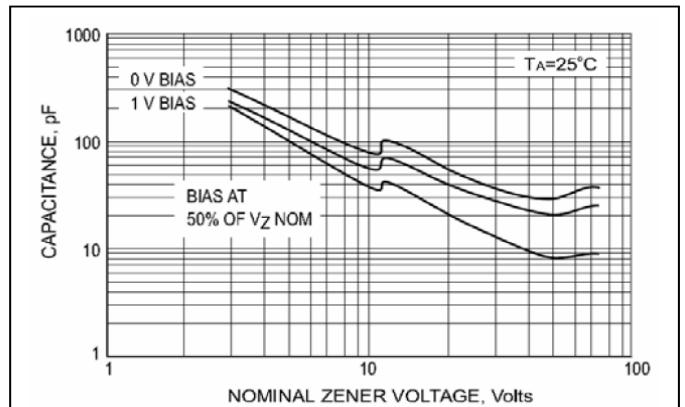


Fig.4 TYPICAL CAPACITANCE

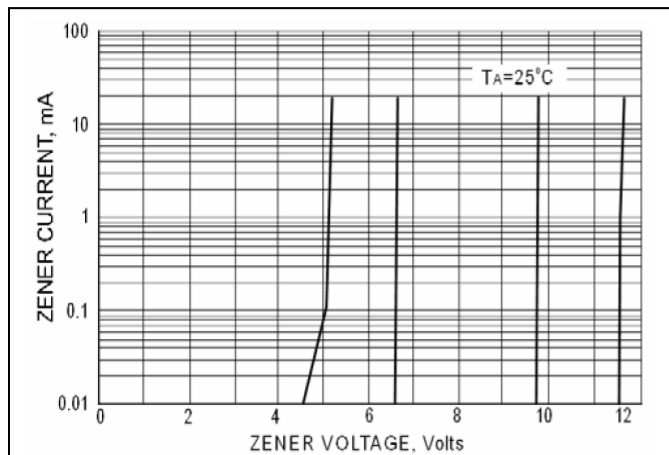


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

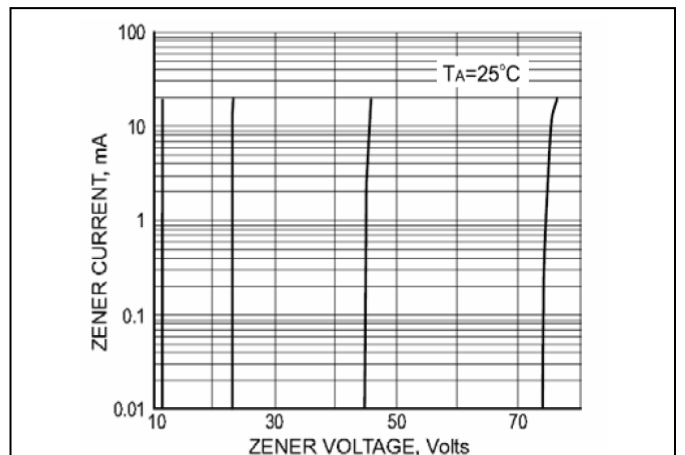


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

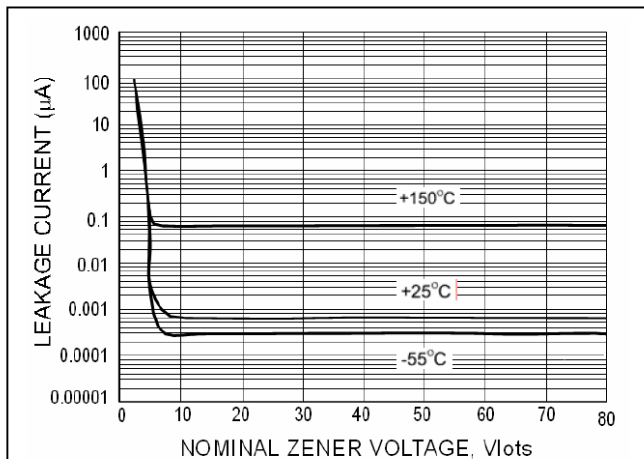


Fig.7 TYPICAL LEAKGE CURRENT