

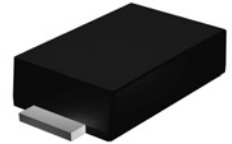
GSM3ZxxBW Series

Surface Mount Zener Diodes

V_Z Range: 2.0V to 75V Power Dissipation: 200mW

Features

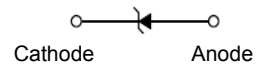
- V_Z tolerance: ±2% (B Series)
- High stability and reliability
- Zener voltage: 2.0V-75V



SOD-323F

Mechanical Data

- SOD-323F flat low profile small footprint
- Color band denotes cathode end
- Mounting position: any



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Characteristic	Symbol	Value	Unit
Forward Voltage (I _F =10mA)	V _F	1.0	V
Power Dissipation	P _{TOT}	200	mW
Junction Temperature	T _J	-65 to +150	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

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

MPN	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	I _{ZK}	Z _{ZK} @ I _{ZK}	I _R @ V _R	V _R
	Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	(mA)	Max (Ω)	Max (μA)	(V)
GSM3Z2V0BW	1.95	2	2.05	5	100	1	564	120	0.5
GSM3Z2V2BW	2.14	2.2	2.26	5	100	1	564	120	0.7
GSM3Z2V4BW	2.35	2.4	2.45	5	100	1	564	45	1
GSM3Z2V7BW	2.65	2.7	2.75	5	100	1	564	18	1
GSM3Z3V0BW	2.94	3	3.06	5	100	1	564	9	1
GSM3Z3V3BW	3.23	3.3	3.37	5	95	1	564	4.5	1
GSM3Z3V6BW	3.53	3.6	3.67	5	90	1	564	4.5	1
GSM3Z3V9BW	3.82	3.9	3.98	5	90	1	564	2.7	1
GSM3Z4V3BW	4.21	4.3	4.39	5	90	1	564	2.7	1
GSM3Z4V7BW	4.61	4.7	4.79	5	80	1	470	2.7	2
GSM3Z5V1BW	5.00	5.1	5.20	5	60	1	451	1.8	2
GSM3Z5V6BW	5.49	5.6	5.71	5	40	1	376	0.9	2
GSM3Z6V2BW	6.08	6.2	6.32	5	10	1	141	2.7	4
GSM3Z6V8BW	6.66	6.8	6.94	5	15	1	75	1.8	4
GSM3Z7V5BW	7.35	7.5	7.65	5	15	1	75	0.9	5
GSM3Z8V2BW	8.04	8.2	8.36	5	15	1	75	0.63	5
GSM3Z9V1BW	8.92	9.1	9.28	5	15	1	94	0.45	6
GSM3Z10VBW	9.80	10	10.20	5	20	1	141	0.18	7
GSM3Z11VBW	10.78	11	11.22	5	20	1	141	0.09	8
GSM3Z12VBW	11.76	12	12.24	5	25	1	141	0.09	8
GSM3Z13VBW	12.74	13	13.26	5	30	1	160	0.09	8
GSM3Z15VBW	14.70	15	15.30	5	30	1	188	0.045	10.5
GSM3Z16VBW	15.68	16	16.32	5	40	1	188	0.045	11.2
GSM3Z18VBW	17.64	18	18.36	5	45	1	212	0.045	12.6
GSM3Z20VBW	19.60	20	20.40	5	55	1	212	0.045	14
GSM3Z22VBW	21.56	22	22.44	5	55	1	235	0.045	15.4
GSM3Z24VBW	23.52	24	24.48	5	70	1	235	0.045	16.8
GSM3Z27VBW	26.46	27	27.54	2	80	0.5	282	0.045	18.9
GSM3Z30VBW	29.40	30	30.60	2	80	0.5	282	0.045	21
GSM3Z33VBW	32.34	33	33.66	2	80	0.5	306	0.045	23
GSM3Z36VBW	35.28	36	36.72	2	90	0.5	329	0.045	25.2
GSM3Z39VBW	38.22	39	39.78	2	130	0.5	329	0.045	27.3
GSM3Z43VBW	42.14	43	43.86	2	150	0.5	353	0.045	30.1
GSM3Z47VBW	46.06	47	47.94	2	170	0.5	353	0.045	33
GSM3Z51VBW	49.98	51	52.02	2	180	0.5	376	0.045	35.7
GSM3Z56VBW	54.88	56	57.12	2	200	0.5	400	0.045	39.2
GSM3Z62VBW	60.76	62	63.24	2	215	0.5	423	0.045	43.4
GSM3Z68VBW	66.64	68	69.36	2	240	0.5	447	0.045	47.6
GSM3Z75VBW	73.50	75	76.50	2	255	0.5	470	0.045	52.5

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. 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}.

Typical Characteristic Curves (T_A=25°C unless otherwise noted)

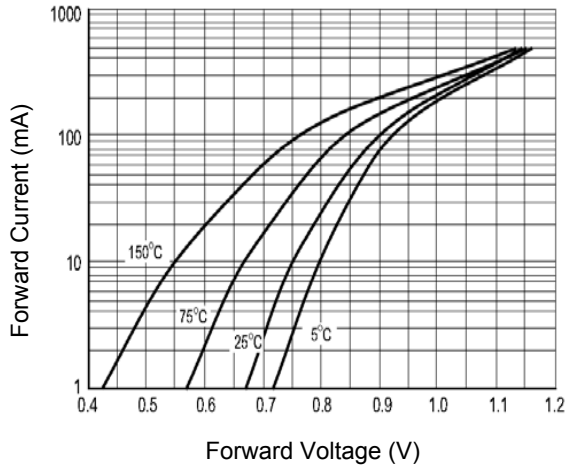


Figure 1. Typical Forward Voltage

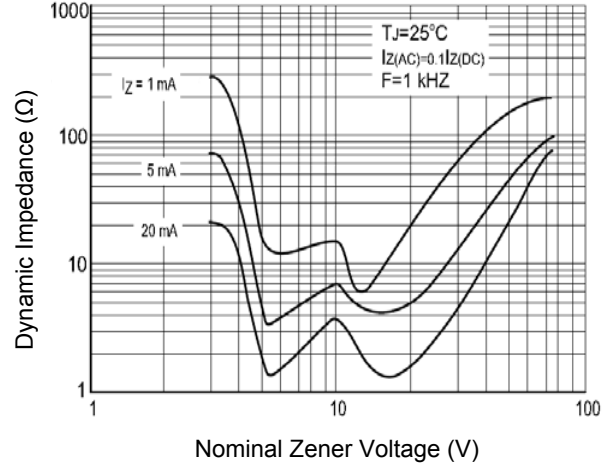


Figure 2. Effect of Zener Voltage on Zener Impedance

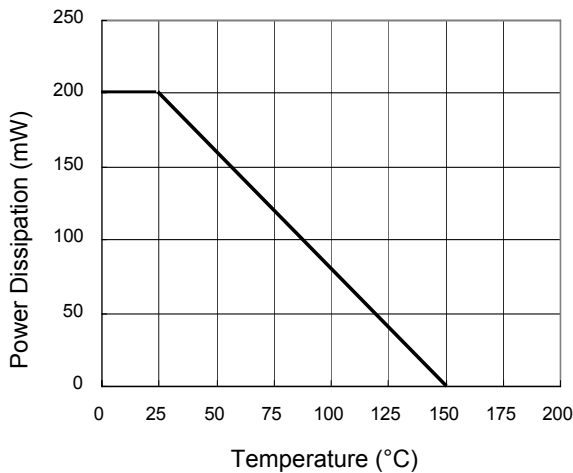


Figure 3. Power Dissipation vs. Ambient Temperature

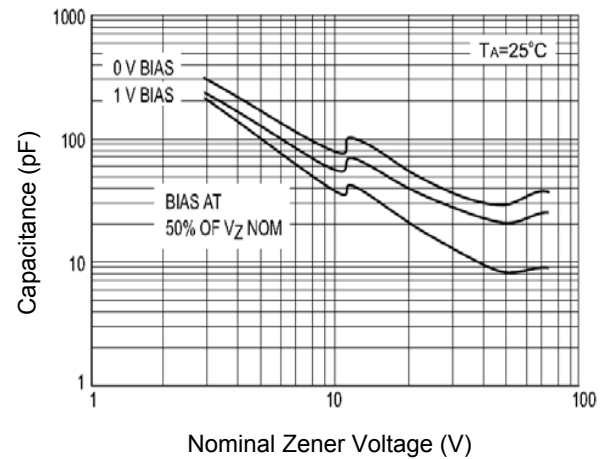


Figure 4. Typical Capacitance

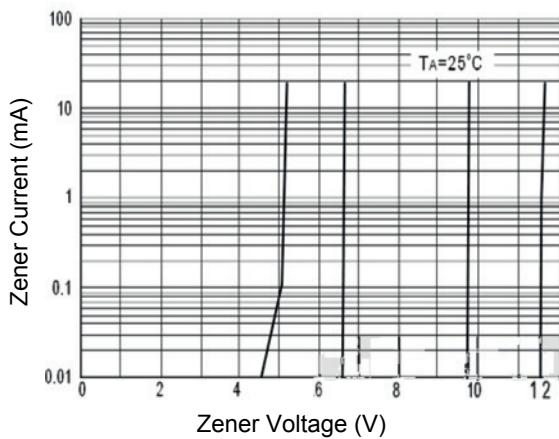


Figure 5. Zener Breakdown Characteristics

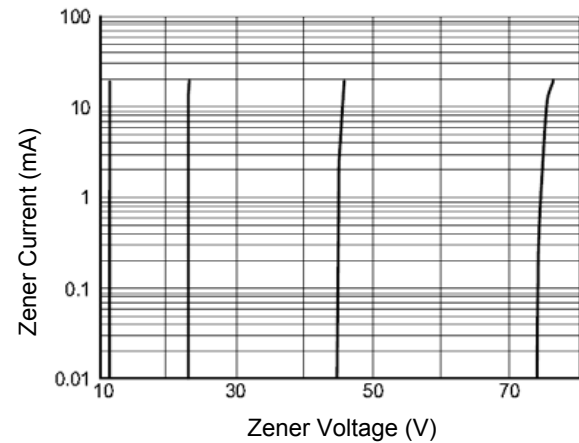


Figure 6. Zener Breakdown Characteristics

Typical Characteristic Curves (T_A=25°C unless otherwise noted)

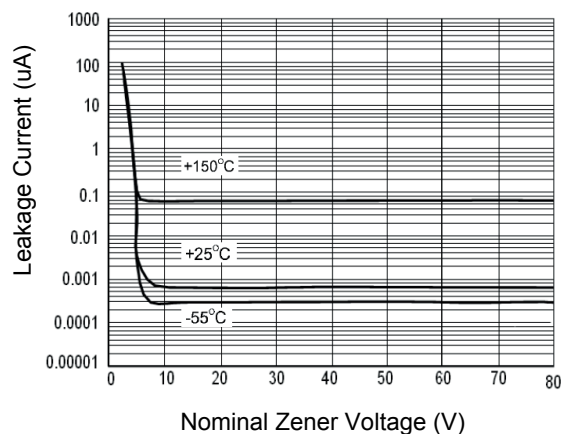
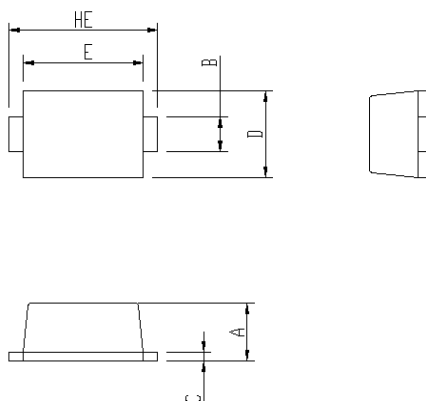


Figure 7. Typical Leakage Current

Package Outline Dimensions (SOD-323F)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.80	1.00	0.031	0.039
B	0.25	0.40	0.010	0.016
C	0.05	0.25	0.002	0.010
D	1.15	1.35	0.045	0.053
E	1.60	1.80	0.063	0.071
HE	2.30	2.70	0.091	0.106

Order Information

Device	Package	Carrier	Quantity
GSM3ZxxBW	SOD-323F	Tape & Reel	3,000 pcs / Reel