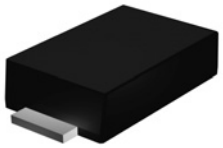
GSM3ZxxCW Series

Surface Mount Zener Diodes

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

Features

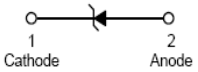
- V_Z tolerance: ±5% (C Series)
- High stability and reliability
- Zener voltage: 2.0V-75V



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

GOOD-ARK SEMICONDUCTOR

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

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

MPN	V_Z @ I_{ZT} (V)			I_{ZT}	Z_{ZT} @ I_{ZT}	I_{ZK}	Z_{ZK} @ I_{ZK}	I_R @ V_R (μA)	V_R
	Min	Nom	Max	(mA)	(Ω) Max	(mA)	(Ω) Max	Max	(V)
GSM3Z2V0CW	1.9	2	2.1	5	100	1	564	120	0.5
GSM3Z2V2CW	2.09	2.2	2.31	5	100	1	564	120	0.7
GSM3Z2V4CW	2.28	2.4	2.52	5	100	1	564	45	1
GSM3Z2V7CW	2.57	2.7	2.84	5	100	1	564	18	1
GSM3Z3V0CW	2.85	3	3.15	5	100	1	564	9	1
GSM3Z3V3CW	3.14	3.3	3.47	5	95	1	564	4.5	1
GSM3Z3V6CW	3.42	3.6	3.78	5	90	1	564	4.5	1
GSM3Z3V9CW	3.71	3.9	4.1	5	90	1	564	2.7	1
GSM3Z4V3CW	4.09	4.3	4.52	5	90	1	564	2.7	1
GSM3Z4V7CW	4.47	4.7	4.94	5	80	1	470	2.7	2
GSM3Z5V1CW	4.85	5.1	5.36	5	60	1	451	1.8	2
GSM3Z5V6CW	5.32	5.6	5.88	5	40	1	376	0.9	2
GSM3Z6V2CW	5.89	6.2	6.51	5	10	1	141	2.7	4
GSM3Z6V8CW	6.46	6.8	7.14	5	15	1	75	1.8	4
GSM3Z7V5CW	7.11	7.5	7.86	5	15	1	75	0.9	5
GSM3Z8V2CW	7.79	8.2	8.61	5	15	1	75	0.63	5
GSM3Z9V1CW	8.65	9.1	9.56	5	15	1	94	0.45	6
GSM3Z10VCW	9.5	10	10.5	5	20	1	141	0.18	7
GSM3Z11VCW	10.45	11	11.55	5	20	1	141	0.09	8
GSM3Z12VCW	11.4	12	12.6	5	25	1	141	0.09	8
GSM3Z13VCW	12.35	13	13.65	5	30	1	160	0.09	8
GSM3Z15VCW	14.25	15	15.75	5	30	1	188	0.045	10.5
GSM3Z16VCW	15.2	16	16.8	5	40	1	188	0.045	11.2
GSM3Z18VCW	17.1	18	18.9	5	45	1	212	0.045	12.6
GSM3Z20VCW	19	20	21	5	55	1	212	0.045	14
GSM3Z22VCW	20.9	22	23.1	5	55	1	235	0.045	15.4
GSM3Z24VCW	22.8	24	25.2	5	70	1	235	0.045	16.8
GSM3Z27VCW	25.65	27	28.35	2	80	0.5	282	0.045	18.9
GSM3Z30VCW	28.5	30	31.5	2	80	0.5	282	0.045	21
GSM3Z33VCW	31.35	33	34.65	2	80	0.5	306	0.045	23
GSM3Z36VCW	34.2	36	37.8	2	90	0.5	329	0.045	25.2
GSM3Z39VCW	37.05	39	40.95	2	130	0.5	329	0.045	27.3
GSM3Z43VCW	40.85	43	45.15	2	150	0.5	353	0.045	30.1
GSM3Z47VCW	44.65	47	49.35	2	170	0.5	353	0.045	33
GSM3Z51VCW	48.45	51	53.55	2	180	0.5	376	0.045	35.7
GSM3Z56VCW	53.2	56	58.8	2	200	0.5	400	0.045	39.2
GSM3Z62VCW	58.9	62	65.1	2	215	0.5	423	0.045	43.4
GSM3Z68VCW	64.6	68	71.4	2	240	0.5	447	0.045	47.6
GSM3Z75VCW	71.25	75	78.75	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 ±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}.

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

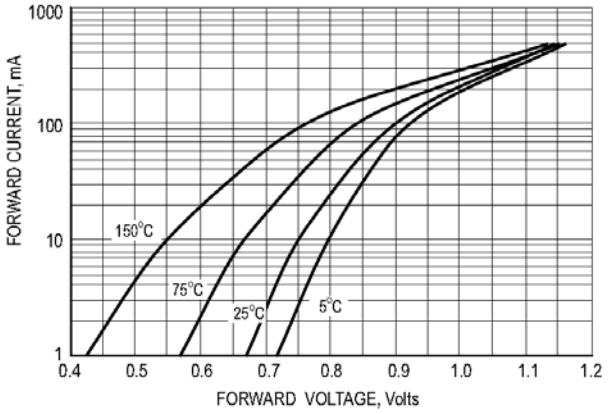

Fig.1 Typical Forward Voltage

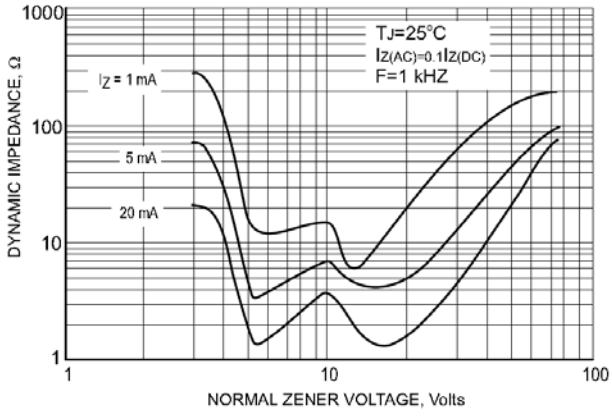

Fig.2 Effect of Zener Voltage on Zener Impedance

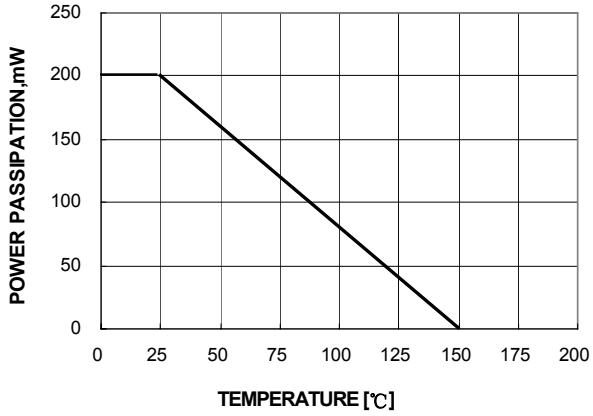

Fig.3 Power Dissipation vs Ambient Temperature

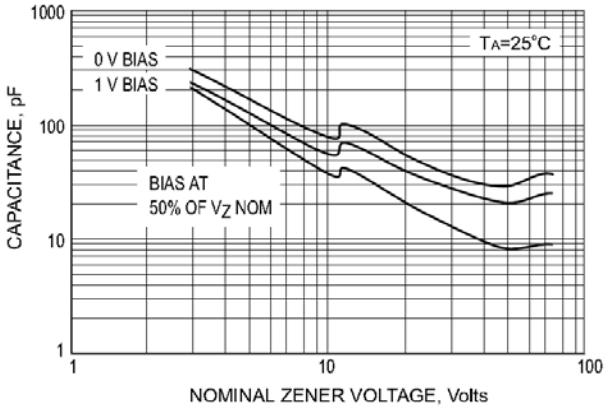

Fig.4 TYPICAL CAPACITANCE

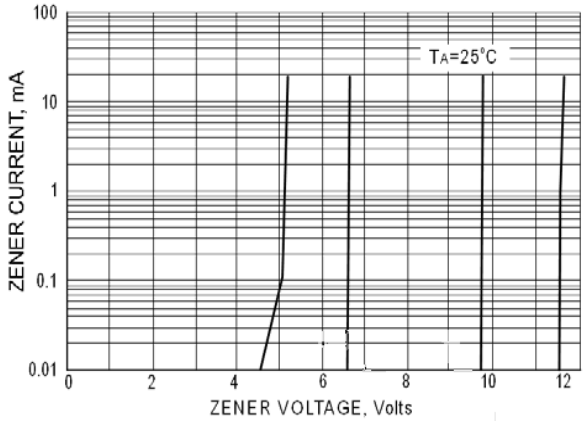

Fig.5 Zener Breakdown Characteristics

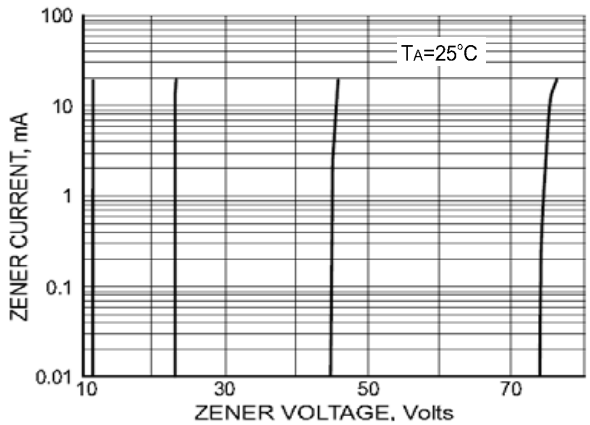

Fig.6 Zener Breakdown Characteristics

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

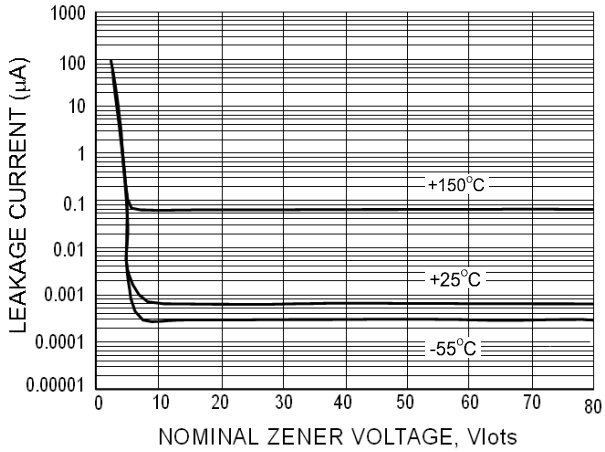
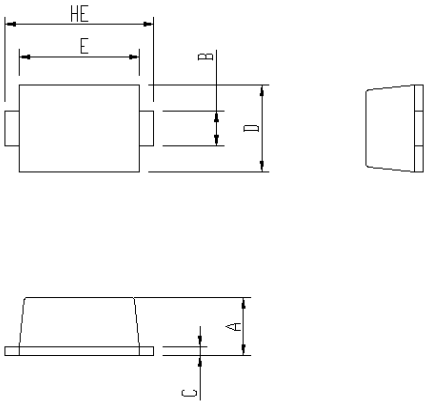


Fig.7 Typical Leakage Current

Package Outline Dimensions

SOD-323F



Dimmensions	Unit:mm	
	MIN	MAX
A	0.80	1.00
B	0.25	0.40
C	0.05	0.25
D	1.15	1.35
E	1.60	1.80
HE	2.30	2.70