

GSZ02M***D4F Series

Zener Diodes

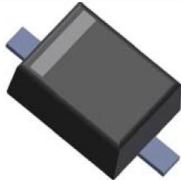
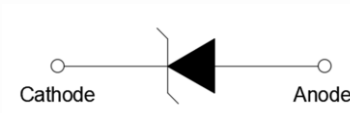
Product Description

Zener diode with 200mW power dissipation.

Features

- Wide Zener Voltage Range Selection, 2.0V to 75V
- Vz Tolerance Selection of $\pm 2\%$
- SOD-323FL Package
- Band Indicates Cathode
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

SOD-323FL	Equivalent Circuit
 *Band Indicates Cathode	

Ordering and Marking Information

Ordering Information			
Part Number	Package	Part Marking	Quantity / Reel
GSZ02M□□□D4F	SOD-323FL	□□	3,000 PCS
- Product Code: GSZ is Zener Diode	- Series Code: 02 w/ SOD-323FL is MM3Z Series	- Vz Tolerance: M is 2%	
- Voltage Code: □□□, such as 2V0 is 2.0V and 75V is 75V etc.	- Package Code: D4 is SOD-323FL	- Green Level: F is RoHS Compliant and Halogen Free	
Marking Information			
	- □□ Device Marking please refer to the Electrical Characteristics Section		

Absolute Maximum Ratings (T_A=25°C Unless Otherwise Specified)

Symbol	Parameter	Value	Unit
P _D	Power Dissipation	200	mW
T _J	Junction Temperature Range	-65 to +150	°C
T _{STG}	Storage Temperature Range	-65 to +150	°C
V _F	Maximum Forward Voltage @ I _F = 10 mA	1	V

Electrical Characteristics (T_A=25°C Unless Otherwise Specified)

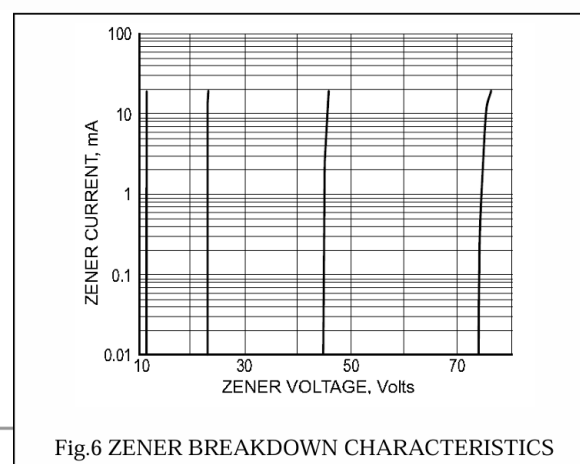
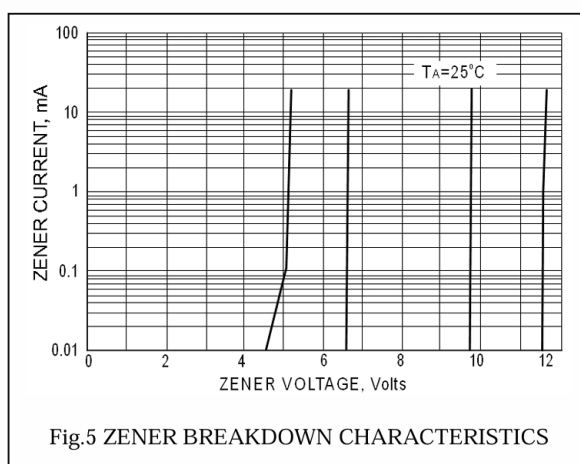
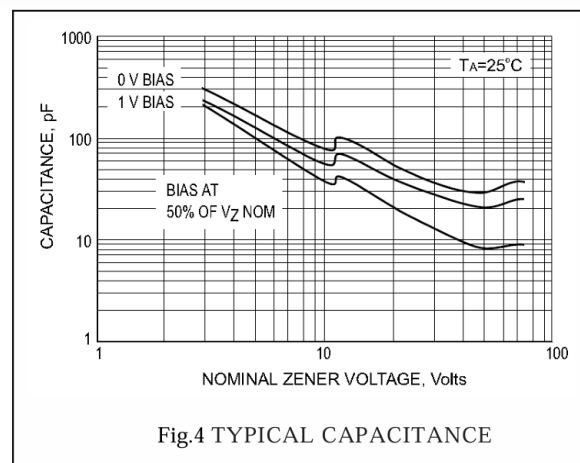
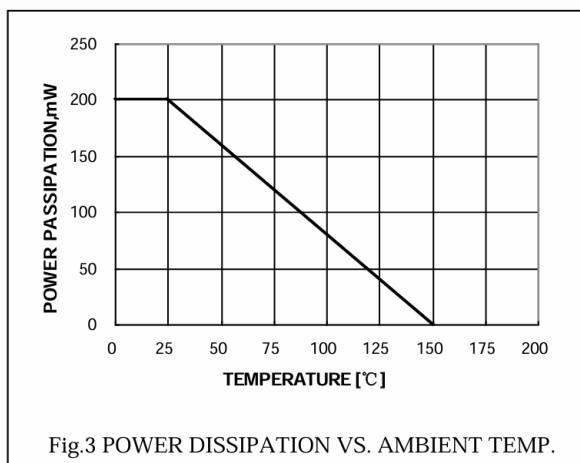
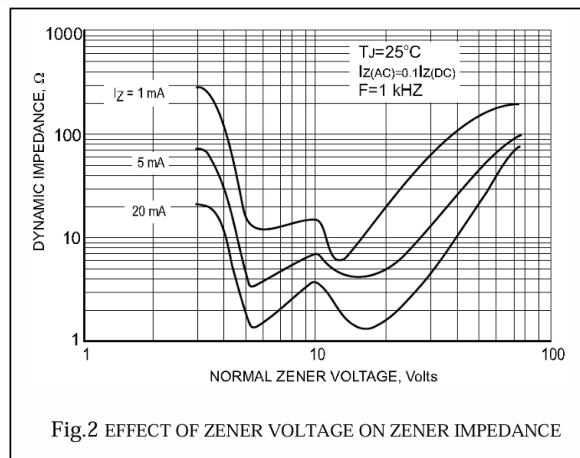
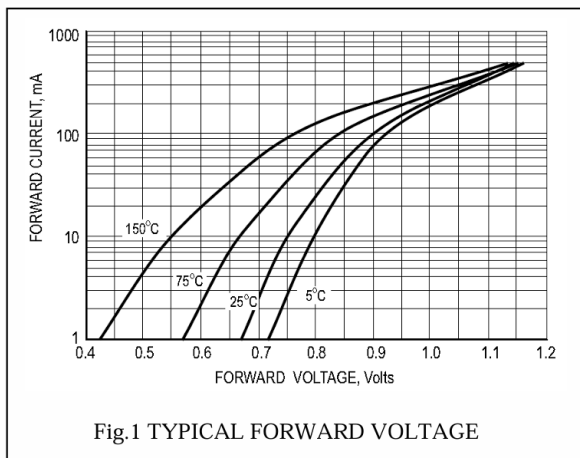
Part Number	Marking	V _Z (V) @ I _{ZT}			Z _{ZT} max @		Z _{ZK} max @		I _R max @	
					Z _{ZT}	I _{ZT}	Z _{ZK}	I _{ZK}	I _R	V _R
		Min	Nom	Max	Ω	mA	Ω	mA	uA	V
GSZ02M2V0D4F	+Z	1.95	2.0	2.05	100	5	564	1	120	0.5
GSZ02M2V2D4F	1Z	2.14	2.2	2.26	100	5	564	1	120	0.7
GSZ02M2V4D4F	0Z	2.35	2.4	2.45	100	5	564	1	45	1
GSZ02M2V7D4F	1Z	2.65	2.7	2.75	100	5	564	1	18	1
GSZ02M3V0D4F	2Z	2.94	3.0	3.06	100	5	564	1	9	1
GSZ02M3V3D4F	3Z	3.23	3.3	3.37	95	5	564	1	4.5	1
GSZ02M3V6D4F	4Z	3.53	3.6	3.67	90	5	564	1	4.5	1
GSZ02M3V9D4F	5Z	3.82	3.9	3.98	90	5	564	1	2.7	1
GSZ02M4V3D4F	6Z	4.21	4.3	4.39	90	5	564	1	2.7	1
GSZ02M4V7D4F	7Z	4.61	4.7	4.79	80	5	470	1	2.7	2
GSZ02M5V1D4F	8Z	5.00	5.1	5.20	60	5	451	1	1.8	2
GSZ02M5V6D4F	9Z	5.49	5.6	5.71	40	5	376	1	0.9	2
GSZ02M6V2D4F	AZ	6.08	6.2	6.32	10	5	141	1	2.7	4
GSZ02M6V8D4F	BZ	6.66	6.8	6.94	15	5	75	1	1.8	4
GSZ02M7V5D4F	CZ	7.35	7.5	7.65	15	5	75	1	0.9	5
GSZ02M8V2D4F	DZ	8.04	8.2	8.36	15	5	75	1	0.63	5
GSZ02M9V1D4F	EZ	8.92	9.1	9.28	15	5	94	1	0.45	6
GSZ02M10VD4F	FZ	9.80	10	10.20	20	5	141	1	0.18	7
GSZ02M11VD4F	GZ	10.78	11	11.22	20	5	141	1	0.09	8
GSZ02M12VD4F	HZ	11.76	12	12.24	25	5	141	1	0.09	8
GSZ02M13VD4F	JZ	12.74	13	13.26	30	5	160	1	0.09	8
GSZ02M15VD4F	KZ	14.70	15	15.30	30	5	188	1	0.045	10.5
GSZ02M16VD4F	LZ	15.68	16	16.32	40	5	188	1	0.045	11.2
GSZ02M18VD4F	MZ	17.64	18	18.36	45	5	212	1	0.045	12.6
GSZ02M20VD4F	NZ	19.60	20	20.40	55	5	212	1	0.045	14.0
GSZ02M22VD4F	PZ	21.56	22	22.44	55	5	235	1	0.045	15.4
GSZ02M24VD4F	RZ	23.52	24	24.48	70	5	235	1	0.045	16.8

GSZ02M27VD4F	SZ	26.46	27	27.54	80	2	282	0.5	0.045	18.9
GSZ02M30VD4F	TZ	29.40	30	30.60	80	2	282	0.5	0.045	21.0
GSZ02M33VD4F	UZ	32.34	33	33.66	80	2	306	0.5	0.045	23.0
GSZ02M36VD4F	VZ	35.28	36	36.72	90	2	329	0.5	0.045	25.2
GSZ02M39VD4F	WZ	38.22	39	39.78	130	2	329	0.5	0.045	27.3
GSZ02M43VD4F	XZ	42.14	43	43.86	150	2	353	0.5	0.045	30.1
GSZ02M47VD4F	YZ	46.06	47	47.94	170	2	353	0.5	0.045	33.0
GSZ02M51VD4F	-Z	49.98	51	52.02	180	2	376	0.5	0.045	35.7
GSZ02M56VD4F	=Z	54.88	56	57.12	200	2	400	0.5	0.045	39.2
GSZ02M62VD4F	≡Z	60.76	62	63.24	215	2	423	0.5	0.045	43.4
GSZ02M68VD4F	>Z	66.64	68	69.36	240	2	447	0.5	0.045	47.6
GSZ02M75VD4F	<Z	73.50	75	76.50	255	2	470	0.5	0.045	52.5

NOTE:

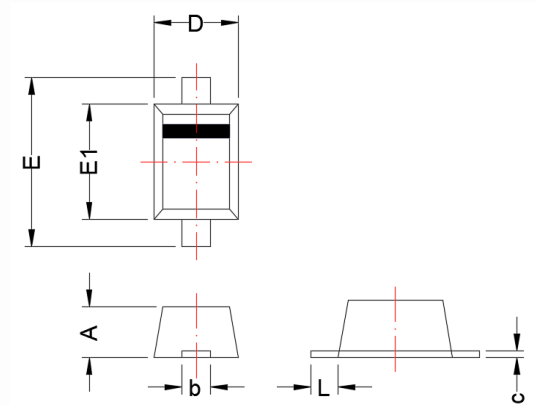
1. The Zener Voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal Zener voltage of $\pm 2\%$.
3. The Zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc Zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

Typical Characteristics

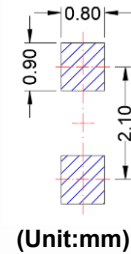


SOD-323FL

Package Dimension



Recommended Land Pattern



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.65	1.10	0.026	0.043
b	0.25	0.60	0.010	0.024
c	0.05	0.26	0.002	0.010
D	1.15	1.35	0.045	0.053
E	2.30	2.70	0.091	0.106
E1	1.60	1.80	0.063	0.071
L	0.30	0.50	0.012	0.020

NOTE:
Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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