

# GSZ02LxxxD3F Series

## Zener Diodes

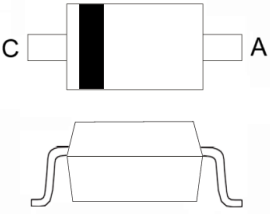

### Product Description

Zener diode with 200mW power dissipation.


### Features

- Wide Zener Voltage Range Selection, 2.4V to 75V
- SOD-323 Package
- Band Indicates Cathode End
- RoHS Compliant and Halogen Free

### Packages & Pin Assignments

SOD-323	Equivalent Circuit
 <p>*Band Indicates Cathode</p>	

### Ordering and Marking Information

Ordering Information			
Part Number	Package	Part Marking	Quantity / Reel
GSZ02L□□□D3F	SOD-323	□□	3,000 PCS
<b>- Product Code:</b> GSZ is Zener Diode		<b>- Series Code:</b> - 02L is BZT52C Series	
<b>- Voltage Code:</b> □□□, such as 2V4 is 2.4V and 75V is 75V etc.		<b>- Package Code:</b> D3 is SOD-323	<b>- Green Level:</b> F is RoHS Compliant and Halogen Free
Marking Information			
		- □□ Device Marking please refer to the Electrical Characteristics Section	

## Absolute Maximum Ratings (T<sub>A</sub>=25°C Unless Otherwise Specified)

Symbol	Parameter	Value	Unit
P <sub>D</sub>	Power Dissipation	200	mW
T <sub>J</sub>	Junction Temperature Range	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C
V <sub>F</sub>	Maximum Forward Voltage @ I <sub>F</sub> = 10 mA	0.9	V

## Electrical Characteristics (T<sub>A</sub>=25°C Unless Otherwise Specified)

Part Number	Marking	V <sub>Z</sub> (V) @ I <sub>ZT</sub>			Z <sub>ZT</sub> max @		Z <sub>ZK</sub> max @		I <sub>R</sub> max @	
					Z <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>
		Min	Nom	Max	Ω	mA	Ω	mA	uA	V
GSZ02L2V4D3F	WX	2.2	2.4	2.6	100	5	600	1	50	1
GSZ02L2V7D3F	W1	2.5	2.7	2.9	100	5	600	1	20	1
GSZ02L3V0D3F	W2	2.8	3.0	3.2	95	5	600	1	10	1
GSZ02L3V3D3F	W3	3.1	3.3	3.5	95	5	600	1	5	1
GSZ02L3V6D3F	W4	3.4	3.6	3.8	90	5	600	1	5	1
GSZ02L3V9D3F	W5	3.7	3.9	4.1	90	5	600	1	3	1
GSZ02L4V3D3F	W6	4.0	4.6	4.39	90	5	600	1	3	1
GSZ02L4V7D3F	W7	4.4	4.7	5.0	80	5	500	1	3	2
GSZ02L5V1D3F	W8	4.8	5.1	5.4	60	5	480	1	2	2
GSZ02L5V6D3F	W9	5.2	5.6	6.0	40	5	400	1	1	2
GSZ02L6V2D3F	WA	5.8	6.2	6.6	10	5	150	1	3	4
GSZ02L6V8D3F	WB	6.4	6.8	7.2	15	5	80	1	2	4
GSZ02L7V5D3F	WC	7.0	7.5	7.9	15	5	80	1	1	5
GSZ02L8V2D3F	WD	7.7	8.2	8.7	15	5	80	1	0.7	5
GSZ02L9V1D3F	WE	8.5	9.1	9.6	15	5	100	1	0.5	6
GSZ02L10VD3F	WF	9.4	10	10.6	20	5	150	1	0.2	7
GSZ02L11VD3F	WG	10.4	11	11.6	20	5	150	1	0.1	8
GSZ02L12VD3F	WH	11.4	12	12.7	25	5	150	1	0.1	8
GSZ02L13VD3F	WI	12.4	13	14.1	30	5	170	1	0.1	8
GSZ02L15VD3F	WJ	13.8	15	15.6	30	5	200	1	0.05	10.5
GSZ02L16VD3F	WK	15.3	16	17.1	40	5	200	1	0.05	11.2
GSZ02L18VD3F	WL	16.8	18	19.1	45	5	225	1	0.05	12.6
GSZ02L20VD3F	WM	18.8	20	21.2	55	5	225	1	0.05	14.0
GSZ02L22VD3F	WN	20.8	22	23.3	55	5	250	1	0.05	15.4
GSZ02L24VD3F	WO	22.8	24	25.6	70	5	250	1	0.05	16.8

GSZ02L27VD3F	WP	25.1	27	28.9	80	2	300	0.5	0.05	18.9
GSZ02L30VD3F	WQ	28.0	30	32.0	80	2	300	0.5	0.05	21.0
GSZ02L33VD3F	WR	31.0	33	35.0	80	2	325	0.5	0.05	23.1
GSZ02L36VD3F	WS	34.0	36	38.0	90	2	350	0.5	0.05	25.2
GSZ02L39VD3F	WT	37.0	39	41.0	130	2	350	0.5	0.05	27.3
GSZ02L43VD3F	WU	40.0	43	46.0	150	2	375	0.5	0.05	30.1
GSZ02L47VD3F	WV	44.0	47	50.0	170	2	375	0.5	0.05	32.9
GSZ02L51VD3F	WW	48.0	51	54.0	180	2	400	0.5	0.05	35.7
GSZ02L56VD3F	X1	52.0	56	60.0	200	2	425	0.5	0.05	39.2
GSZ02L62VD3F	X2	58.0	62	66.0	215	2	450	0.5	0.05	43.4
GSZ02L68VD3F	X3	64.0	68	72.0	240	2	475	0.5	0.05	47.6
GSZ02L75VD3F	X4	70.0	75	79.0	255	2	500	0.5	0.05	52.5

**NOTE:**

1. The Zener Voltage ( $V_z$ ) is tested under pulse condition of 10mS.

## Typical Characteristics

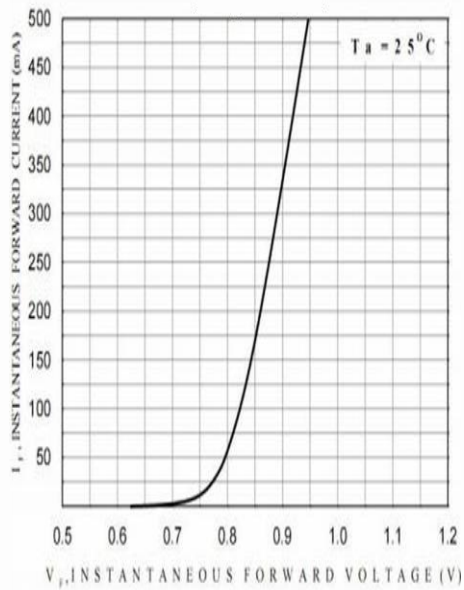


Figure 1. Forward Characteristics

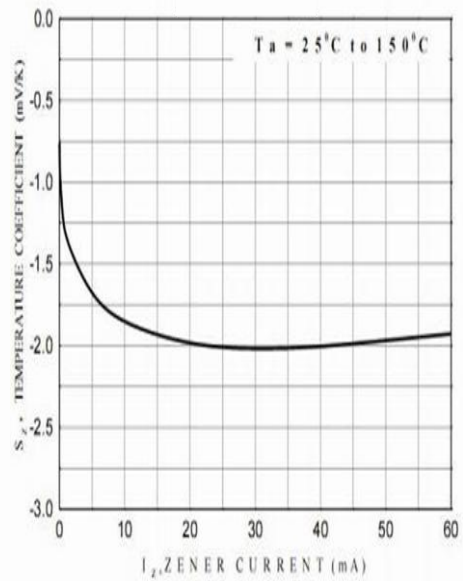


Figure 2. Temperature Coefficient of Zener Voltage

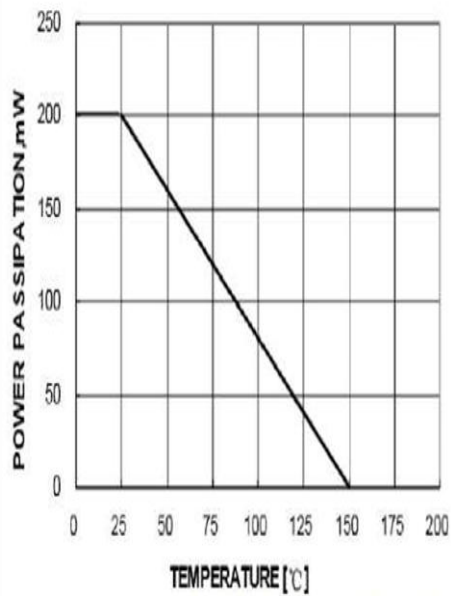
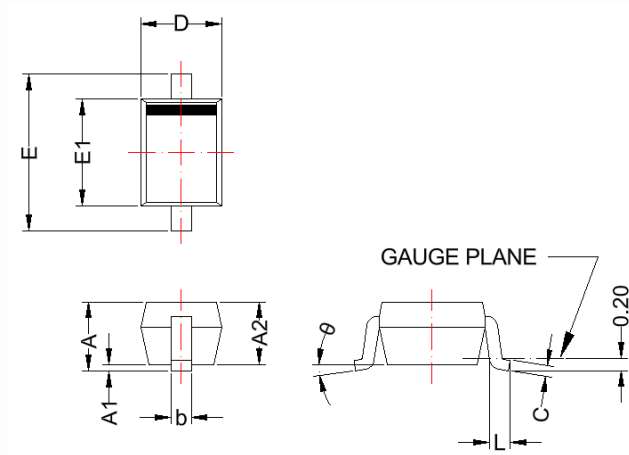


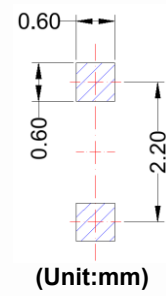
Figure 3. Power Derating Curve

# SOD-323

## Package Dimension



## Recommended Land Pattern







Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	---	1.10	---	0.043
A1	0.00	0.10	0.000	0.004
A2	0.80	---	0.031	---
B	0.25	0.40	0.010	0.016
c	0.08	0.25	0.003	0.010
D	1.10	1.40	0.043	0.055
E	2.30	2.70	0.091	0.106
E1	1.60	1.80	0.063	0.071
L	0.10	0.40	0.004	0.016
$\theta$	0°	8°	0°	8°



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

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