

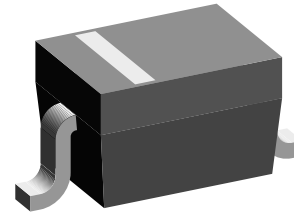
## Small Signal Zener Diodes

### Features

- Silicon planar power zener diodes
- Low zener impedance and low leakage current
- Popular in asian designs
- Compact surface mount device
- Ideal for automated mounting
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT  
**GREEN**  
(5-2009)\*\*



20145

### Mechanical Data

**Case:** SOD-323

**Weight:** approx. 4 mg

**Packaging codes/options:**

18/10 k per 13" reel (8 mm tape), 10 k/box

08/3 k per 7" reel (8 mm tape), 15 k/box

### Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation		$P_d$	200	mW

### Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Junction temperature		$T_j$	150	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 55 to + 150	

\*\* Please see document "Vishay Material Category Policy": [www.vishay.com/doc?99902](http://www.vishay.com/doc?99902)

### Electrical Characteristics

Part number	Marking code	Zener voltage subdivision		Operating resistance	Rising operating resistance	Test current		Reverse current	
		$V_Z$ at $I_{ZT1}$	$V_Z$ at $I_{ZT1}$	$Z_Z$ at $I_{ZT1}$	$Z_{ZK}$ at $I_{ZT2}$	$I_{ZT1}$	$I_{ZT2}$	$I_R$	at $V_R$
		V	V	$\Omega$		mA	mA	$\mu A$	V
		min.	max.	max.	max.				
GDZ2V0B-V-G	05	2.020	2.200	100	1000	5	0.5	120	0.5
GDZ2V2B-V-G	15	2.220	2.410	100	1000	5	0.5	120	0.7
GDZ2V4B-V-G	25	2.430	2.630	100	1000	5	0.5	120	1
GDZ2V7B-V-G	35	2.690	2.910	110	1000	5	0.5	100	1
GDZ3V0B-V-G	45	3.010	3.220	120	1000	5	0.5	50	1
GDZ3V3B-V-G	55	3.320	3.530	120	1000	5	0.5	20	1
GDZ3V6B-V-G	65	3.600	3.845	100	1000	5	1	10	1
GDZ3V9B-V-G	75	3.890	4.160	100	1000	5	1	5	1
GDZ4V3B-V-G	85	4.170	4.430	100	1000	5	1	5	1
GDZ4V7B-V-G	95	4.550	4.750	100	800	5	0.5	2	1
GDZ5V1B-V-G	U1	4.980	5.200	80	500	5	0.5	2	1
GDZ5V6B-V-G	U2	5.490	5.730	60	200	5	0.5	1	2.5
GDZ6V2B-V-G	U3	6.060	6.330	60	100	5	0.5	1	3
GDZ6V8B-V-G	U4	6.650	6.930	40	60	5	0.5	0.5	3.5
GDZ7V5B-V-G	U5	7.280	7.600	30	60	5	0.5	0.5	4
GDZ8V2B-V-G	U6	8.020	8.360	30	60	5	0.5	0.5	5
GDZ9V1B-V-G	U7	8.850	9.230	30	60	5	0.5	0.5	6
GDZ10B-V-G	U8	9.770	10.210	30	60	5	0.5	0.1	7
GDZ11B-V-G	U9	10.760	11.220	30	60	5	0.5	0.1	8
GDZ12B-V-G	UA	11.740	12.240	30	80	5	0.5	0.1	9
GDZ13B-V-G	UB	12.910	13.490	37	80	5	0.5	0.1	10
GDZ15B-V-G	UC	14.340	14.980	42	80	5	0.5	0.1	11
GDZ16B-V-G	UD	15.850	16.510	50	80	5	0.5	0.1	12
GDZ18B-V-G	UE	17.560	18.350	65	80	5	0.5	0.1	13
GDZ20B-V-G	UH	19.520	20.390	85	100	5	0.5	0.1	15
GDZ22B-V-G	UK	21.540	22.470	100	100	5	0.5	0.1	17
GDZ24B-V-G	UL	23.720	24.780	120	120	5	0.5	0.1	19
GDZ27B-V-G	UM	26.190	27.530	150	150	5	0.5	0.1	21
GDZ30B-V-G	UN	29.190	30.690	200	200	5	0.5	0.1	23
GDZ33B-V-G	UP	32.150	33.790	250	250	5	0.5	0.1	25
GDZ36B-V-G	UT	35.070	36.870	300	300	5	0.5	0.1	27

Notes:

- (1) The Zener voltage  $V_Z$  is measured 40 ms after power is supplied.
- (2) The operating resistance ( $Z_Z$ ,  $Z_{ZK}$ ) are measured by superimposing a 1 kHz alternating current on the regulated current ( $I_Z$ ).

## Typical Characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

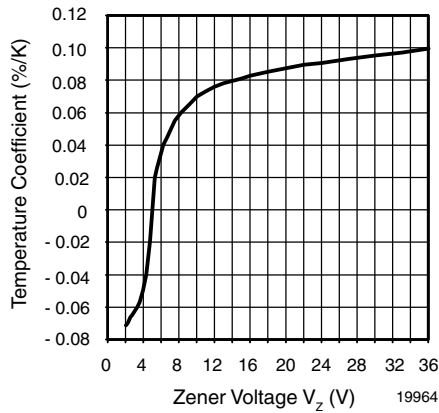
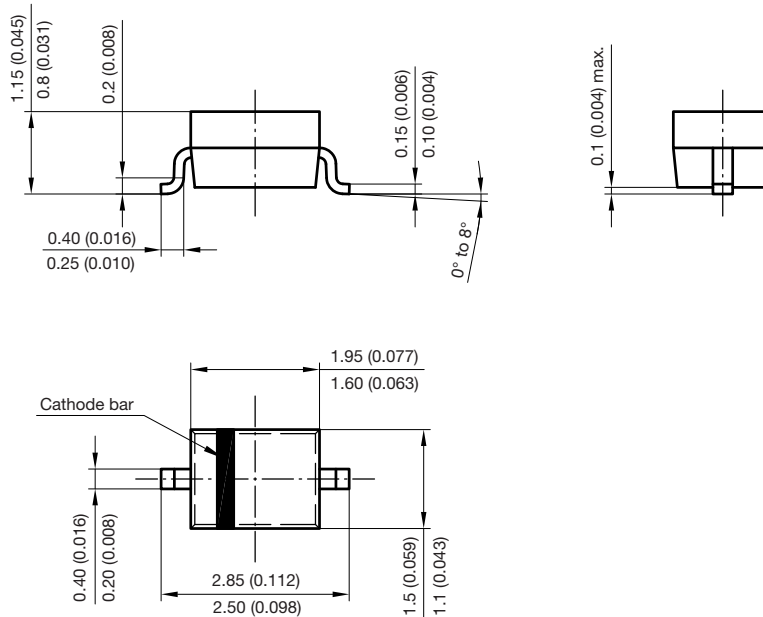
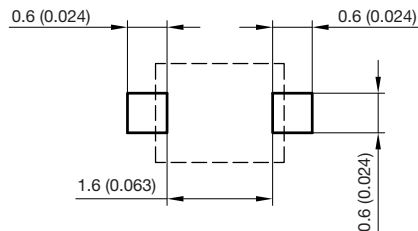


Figure 1. Zener Voltage Temperature Coefficient vs. Zener Voltage

## Package Dimensions in millimeters (inches): SOD-323



Foot print recommendation:



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 17443



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