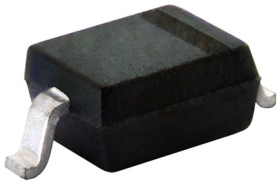
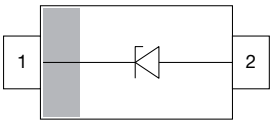
Small Signal Zener Diodes





FEATURES

- Silicon planar Zener diodes
- Low Zener impedance and low leakage current
- Popular in Asian designs
- Compact surface mount device
- Ideal for automated mounting
- AEC-Q101 qualified available
- ESD capability according to AEC-Q101:
  human body model > 8 kV
  machine model > 800 V
- Base P/N-E3 - RoHS-compliant, commercial grade
- Base P/N-HE3 - RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE Available

Pb-free

e3

RoHS COMPLIANT

MARKING (example only)



XYZ = type code (see table below)
bar = pin 1

LINKS TO ADDITIONAL RESOURCES

3D Models | Marking | Parametric Search | Order Samples

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
V_Z range nom.	2.0 to 36	V
Test current I_{ZT}	5	mA
V_Z specification	Pulse current	
Circuit configuration	Single	

ORDERING INFORMATION				
DEVICE NAME	ORDERING CODE	AEC-Q101 QUALIFIED	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
GDZ	GDZ2V0B-E3-08 to GDZ36B-E3-08	No	3000 (8 mm tape on 7" reel)	15 000/box
	GDZ2V0B-HE3_A08 to GDZ36B-HE3_A08	Yes		
	GDZ2V0B-E3-18 to GDZ36B-E3-18	No	10 000 (8 mm tape on 13" reel)	10 000/box
	GDZ2V0B-HE3_A18 to GDZ36B-HE3_A18	Yes		

PACKAGE				
PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
SOD-323	4 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Power dissipation		P_{tot}	200	mW
Thermal resistance junction to lead		R_{thJL}	625	K/W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to +150	°C
Operating temperature range		T_{op}	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PART NUMBER	MARKING CODE	ZENER VOLTAGE RANGE		TEST CURRENT		REVERSE CURRENT		DYNAMIC RESISTANCE	
		V_Z at I_{ZT1}		I_{ZT1}	I_{ZT2}	I_R at V_R		Z_Z at I_{ZT1}	Z_{ZK} at I_{ZT2}
		V		mA		µA	V	Ω	
		MIN.	max.			max.		max.	max.
GDZ2V0B	V1	2.02	2.2	5	0.5	120	0.5	100	1000
GDZ2V2B	V2	2.22	2.41	5	0.5	120	0.7	100	1000
GDZ2V4B	V3	2.43	2.63	5	0.5	120	1	100	1000
GDZ2V7B	V4	2.69	2.91	5	0.5	100	1	110	1000
GDZ3V0B	V5	3.01	3.22	5	0.5	50	1	120	1000
GDZ3V3B	V6	3.32	3.53	5	0.5	20	1	120	1000
GDZ3V6B	V7	3.6	3.845	5	1	10	1	100	1000
GDZ3V9B	V8	3.89	4.16	5	1	5	1	100	1000
GDZ4V3B	V9	4.17	4.43	5	1	5	1	100	1000
GDZ4V7B	V0	4.55	4.75	5	0.5	2	1	100	800
GDZ5V1B	VA	4.98	5.2	5	0.5	2	1	80	500
GDZ5V6B	VB	5.49	5.73	5	0.5	1	2.5	60	200
GDZ6V2B	VC	6.06	6.33	5	0.5	1	3	60	100
GDZ6V8B	VD	6.65	6.93	5	0.5	0.5	3.5	40	60
GDZ7V5B	VE	7.28	7.6	5	0.5	0.5	4	30	60
GDZ8V2B	VF	8.02	8.36	5	0.5	0.5	5	30	60
GDZ9V1B	VG	8.85	9.23	5	0.5	0.5	6	30	60
GDZ10B	VH	9.77	10.21	5	0.5	0.1	7	30	60
GDZ11B	VI	10.76	11.22	5	0.5	0.1	8	30	60
GDZ12B	VJ	11.74	12.24	5	0.5	0.1	9	30	80
GDZ13B	VK	12.91	13.49	5	0.5	0.1	10	37	80
GDZ15B	VL	14.34	14.98	5	0.5	0.1	11	42	80
GDZ16B	VM	15.85	16.51	5	0.5	0.1	12	50	80
GDZ18B	VN	17.56	18.35	5	0.5	0.1	13	65	80
GDZ20B	VO	19.52	20.39	5	0.5	0.1	15	85	100
GDZ22B	VP	21.54	22.47	5	0.5	0.1	17	100	100
GDZ24B	VR	23.72	24.78	5	0.5	0.1	19	120	120
GDZ27B	VS	26.19	27.53	5	0.5	0.1	21	150	150
GDZ30B	VT	29.19	30.69	5	0.5	0.1	23	200	200
GDZ33B	VU	32.15	33.79	5	0.5	0.1	25	250	250
GDZ36B	VV	35.07	36.87	5	0.5	0.1	27	300	300

Notes

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

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TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

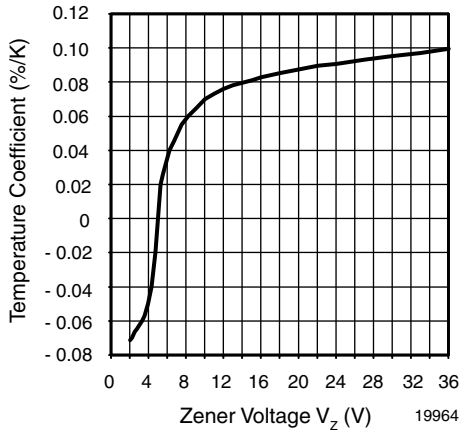
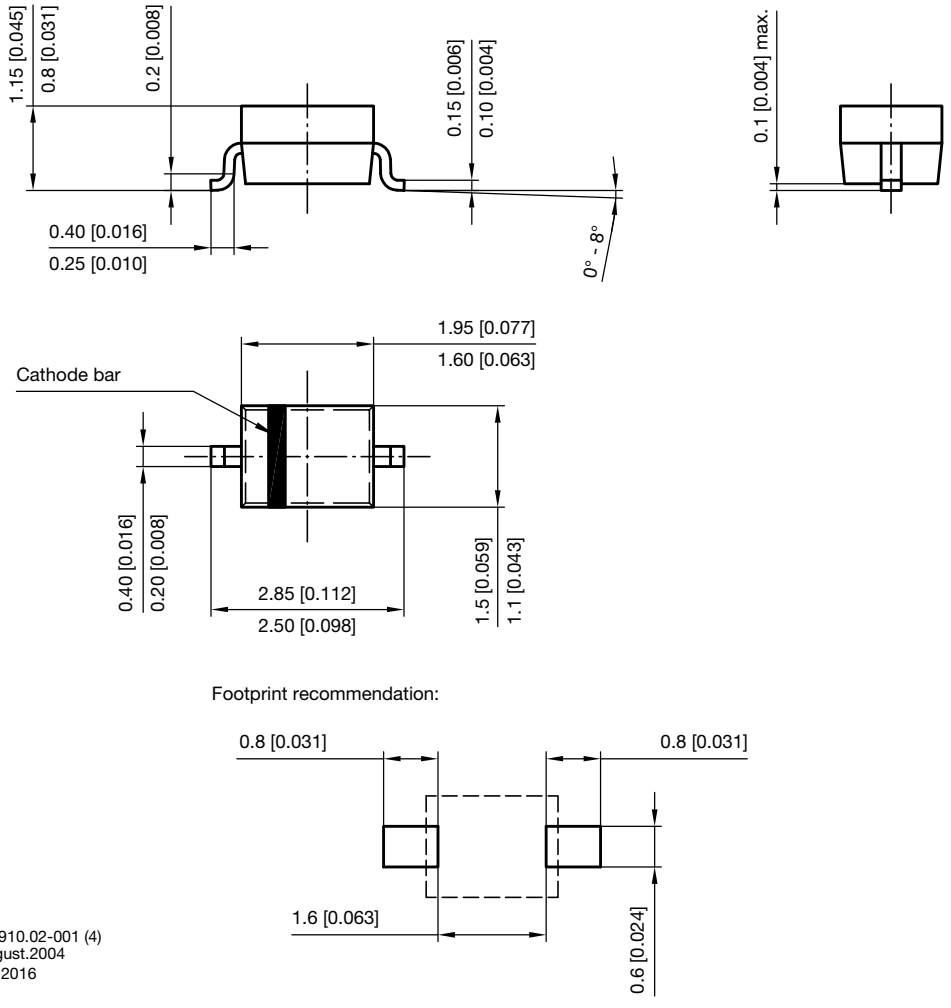


Fig. 1 - Zener Voltage Temperature Coefficient vs. Zener Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-323



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