

# UDZS SERIES

## Surface Mount Zener Diode

Voltage Range  
3.6 to 36 Volts  
200m Watts Power Dissipation

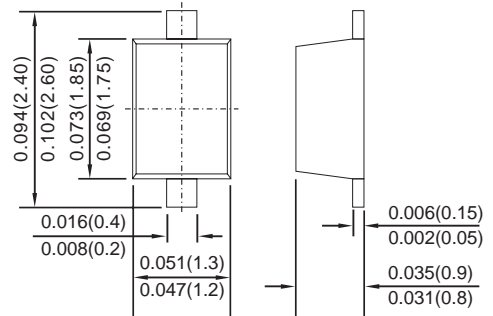
### SOD-323

### Features

- ✧ Compact, 2-pin mini-mold type for high-density mounting. (UMD2)
- ✧ Non-wire bonding structure improves.
- ✧ High demand voltage range (3.6V~36V) is manufactured on high-efficient non-wire bonding production line

### Mechanical Data

- ✧ Case: SOD-323, Plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode band
- ✧ Marking: Date Code and Type Code or Date Code only
- ✧ Type Code: See table on Page 2
- ✧ Weight: 0.01 grams (approx.)



Dimensions in inches and (millimeters)

### **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

#### **Maximum Ratings**

Type Number	Symbol	Value	Units
Power Dissipation (Note 1)	P <sub>d</sub>	200	mW
Junction Temperature Range	T <sub>J</sub>	-55 to + 150	°C
Maximum Instantaneous Forward Voltage @ 100mA	V <sub>F</sub>	1.3	V
Operating and Storage Temperature Range	T <sub>STG</sub>	-55 to + 150	°C

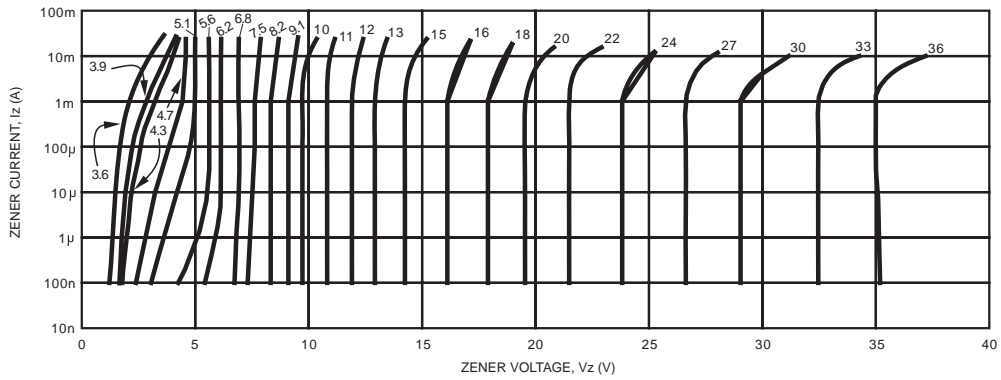
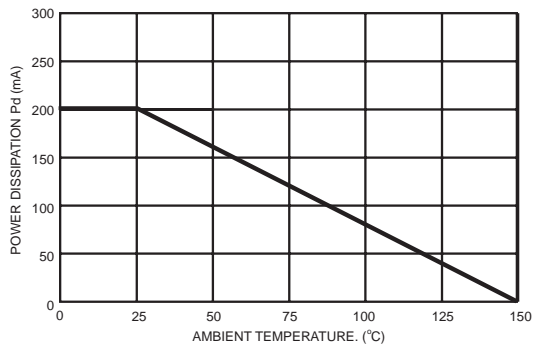
Note: 1. Device Mounted on Ceramic PCB, 7.6mm x 9.4mm x 0.87mm with Pad Areas 25mm<sup>2</sup>

**ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)**

Device	Device Marking Code	Zener Voltage			Operating Resistance		Rising Operating Resistance		Reverse Current	
		V <sub>Z</sub> (V)			Z <sub>Z</sub> (Ohms)		Z <sub>ZK</sub> (Ohms)		I <sub>R</sub> ( $\mu$ A)	
		Min.	Max.	I <sub>Z</sub> mA	Max.	I <sub>Z</sub> mA	Max.	I <sub>Z</sub> (mA)	Max	V <sub>R</sub> V
UDZS 3.6B	62	3.600	3.845	5.0	100	5.0	1000	1.0	10	1
UDZS 3.9B	72	3.890	4.160	5.0	100	5.0	1000	1.0	5	1
UDZS 4.3B	82	4.170	4.430	5.0	100	5.0	1000	1.0	5	1
UDZS 4.7B	92	4.550	4.750	5.0	100	5.0	800	0.5	2	1
UDZS 5.1B	A2	4.980	5.200	5.0	80	5.0	500	0.5	2	2
UDZS 5.6B	C2	5.490	5.730	5.0	60	5.0	200	0.5	1	3
UDZS 6.2B	E2	6.060	6.330	5.0	60	5.0	100	0.5	1	3
UDZS 6.8B	F2	6.650	6.930	5.0	40	5.0	60	0.5	0.5	4
UDZS 7.5B	H2	7.280	7.600	5.0	30	5.0	60	0.5	0.5	4
UDZS 8.2B	J2	8.020	8.360	5.0	30	5.0	60	0.5	0.5	5
UDZS 9.1B	L2	8.850	9.230	5.0	30	5.0	60	0.5	0.5	6
UDZS 10B	05	9.770	10.210	5.0	30	5.0	60	0.5	0.1	7
UDZS 11B	15	10.760	11.220	5.0	30	5.0	60	0.5	0.1	8
UDZS 12B	25	11.740	12.240	5.0	30	5.0	80	0.5	0.1	9
UDZS 13B	35	12.910	13.490	5.0	37	5.0	80	0.5	0.1	10
UDZS 15B	45	14.340	14.980	5.0	42	5.0	0	0.5	0.1	11
UDZS 16B	55	15.850	16.510	5.0	50	5.0	80	0.5	0.1	12
UDZS 18B	65	17.560	18.350	5.0	65	5.0	80	0.5	0.1	13
UDZS 20B	75	19.520	20.390	5.0	85	5.0	100	0.5	0.1	15
UDZS 22B	85	21.540	22.470	5.0	100	5.0	100	0.5	0.1	17
UDZS 24B	95	23.720	24.780	5.0	120	5.0	120	0.5	0.1	19
UDZS 27B	A5	26.190	27.530	5.0	150	5.0	150	0.5	0.1	21
UDZS 30B	C5	29.190	30.690	5.0	200	5.0	200	0.5	0.1	23
UDZS 33B	E5	32.150	33.790	5.0	250	5.0	250	0.5	0.1	25
UDZS 36B	F5	35.070	36.870	5.0	300	5.0	300	0.5	0.1	27

Notes: 1. The Zener Voltage (V<sub>Z</sub>) is measured 40ms after power is supplied.

2. The operating resistances (Z<sub>Z</sub>, Z<sub>ZK</sub>) are measured by superimposing a minute alternating current on a regulated current (I<sub>Z</sub>).

**RATINGS AND CHARACTERISTIC CURVES (UDZS SERIES)**
**FIG.1-ZENER VOLTAGE CHARACTERISTICS**

**FIG.2- DERATING CURVE**

**FIG.3- COEFFICIENT CHARACTERISTICS**
