

**Small Signal Product**
**Surface Mount Flat Lead Plastic Package Zener Diode**
**FEATURES**

- Zener voltage range selection, 3.6V to 36V
- Flat lead SOD-323F small outline plastic package.
- Surface mount device type
- Moisture sensitivity level 1
- Clip bonding construction, good thermal capability
- RoHS compliant
- Matte Tin (Sn) lead finish
- Band indicates cathode


**SOD-323F**


<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNITS</b>
Power dissipation	$P_d$	200	mW
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of the diode may be impaired.

<b>ORDERING INFORMATION</b>					
<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>PACKAGE</b>	<b>PACKING</b>
UDZSxxxB (Note1)	(Note 2)	RR	G	SOD-323F	3K / 7" Reel
		R9			10K / 13" Reel

Note 1: "xxx" defines voltage from 3.6V (UDZS3V6B) to 36V (UDZS36B)

Note 2: Manufacture special control, if empty means no special control requirement.

<b>EXAMPLE</b>					
<b>PREFERRED P/N</b>	<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND</b>	<b>DESCRIPTION</b>
UDZS36B R9G	UDZS36B		R9	G	Green compound
UDZS36B-L0 R9G	UDZS36B	L0	R9	G	Green compound

**Small Signal Product**
**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

Device	Device Marking Code	V <sub>Z</sub> @ I <sub>ZT</sub> (V)		I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> ( )	I <sub>ZK</sub> mA	Z <sub>ZK</sub> @ I <sub>ZK</sub> ( )	I <sub>R</sub> @ V <sub>R</sub> ( A)	V <sub>R</sub> (V)
		Min.	Max		Max.		Max	Max.	
UDZS3V6B	D0	3.60	3.85	5	90	1.0	600	4.50	1
UDZS3V9B	D1	3.89	4.16	5	90	1.0	600	2.70	1
UDZS4V3B	D2	4.17	4.43	5	90	1.0	600	2.70	1
UDZS4V7B	D3	4.55	4.75	5	80	1.0	500	2.70	1
UDZS5V1B	D4	4.98	5.20	5	60	1.0	500	1.80	2
UDZS5V6B	D5	5.49	5.73	5	40	1.0	300	0.90	3
UDZS6V2B	D6	6.06	6.33	5	40	1.0	150	2.70	3
UDZS6V8B	D7	6.65	6.93	5	30	1.0	75	1.80	4
UDZS7V5B	D8	7.28	7.60	5	30	1.0	75	0.90	4
UDZS8V2B	D9	8.02	8.36	5	30	1.0	75	0.63	5
UDZS9V1B	DA	8.85	9.23	5	30	1.0	90	0.45	6
UDZS10B	DB	9.77	10.21	5	20	1.0	150	0.18	7
UDZS11B	DC	10.76	11.22	5	20	1.0	150	0.09	8
UDZS12B	DE	11.74	12.24	5	20	1.0	150	0.09	9
UDZS13B	DF	12.91	13.49	5	40	1.0	160	0.045	10
UDZS15B	DG	14.34	14.98	5	40	1.0	190	0.045	11
UDZS16B	DH	15.85	16.51	5	40	1.0	190	0.045	12
UDZS18B	DJ	17.56	18.35	5	50	1.0	220	0.045	13
UDZS20B	DK	19.52	20.39	5	60	1.0	220	0.045	15
UDZS22B	DL	21.54	22.47	5	80	1.0	240	0.045	17
UDZS24B	DM	23.72	24.78	5	80	1.0	240	0.045	19
UDZS27B	DN	26.19	27.53	5	100	0.5	300	0.045	21
UDZS30B	DP	29.19	30.69	5	100	0.5	300	0.045	23
UDZS33B	DR	32.15	33.79	5	100	0.5	310	0.045	25
UDZS36B	DS	35.07	36.87	5	100	0.5	330	0.045	27

## Notes :

1. The zener Voltage (V<sub>Z</sub>) is tested under pulse condition of 40ms
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an ms value equal to 10% of the dc zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed to I<sub>ZT</sub> or I<sub>ZK</sub>

**Small Signal Product**

FIG. 1 Zener Voltage Characteristics

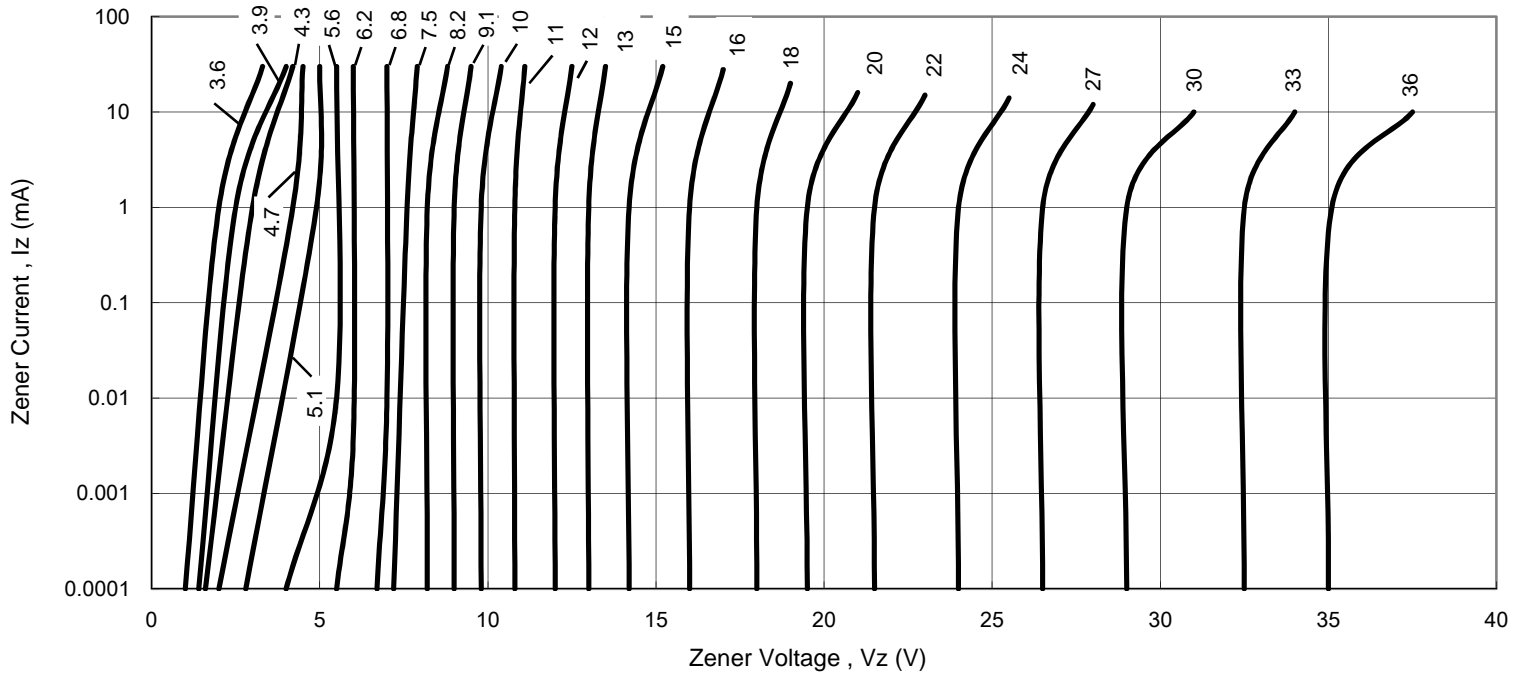


FIG.2 Derating Curve

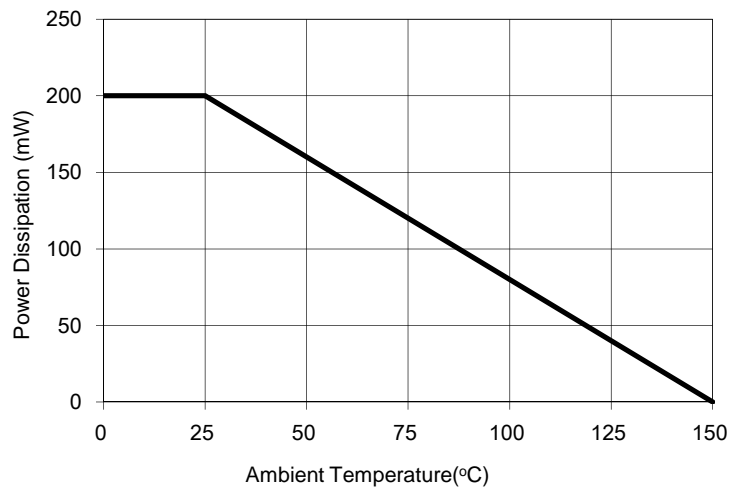
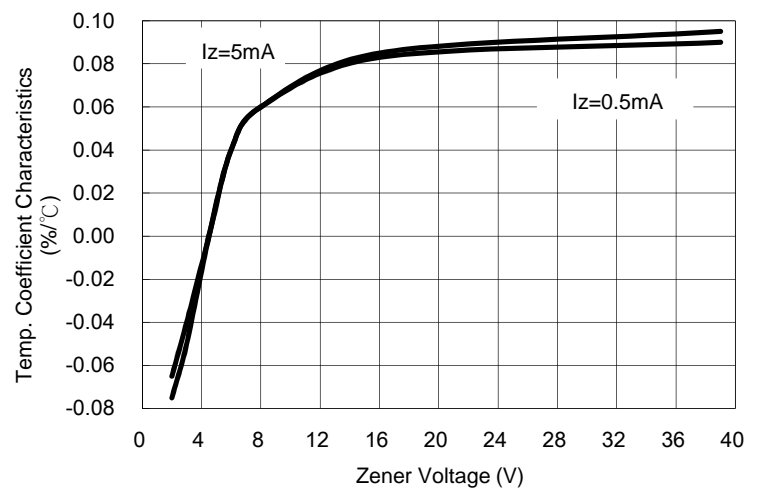
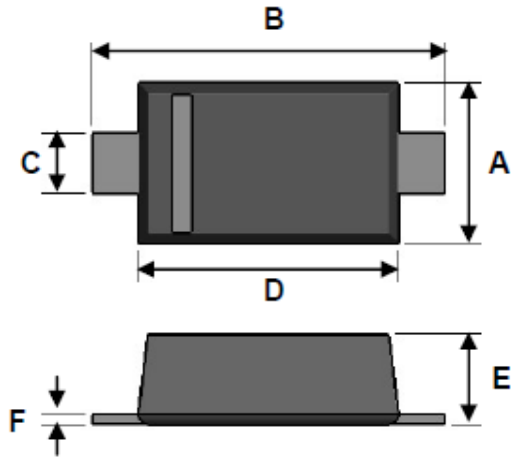


FIG. 3 Zener Voltage-Temp. Coefficient Characteristics



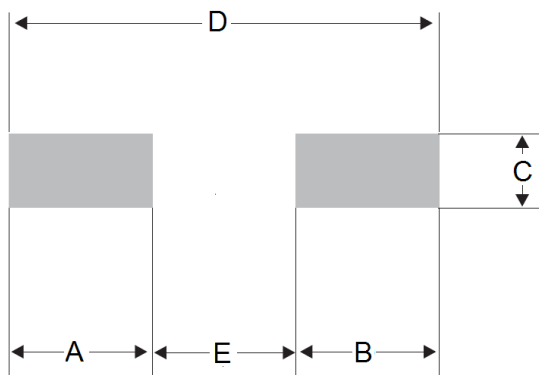
**Small Signal Product**

**DIMENSIONS**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.15	1.35	0.045	0.053
B	2.30	2.80	0.091	0.110
C	0.25	0.40	0.010	0.016
D	1.60	1.80	0.063	0.071
E	0.80	1.10	0.031	0.043
F	0.05	0.25	0.002	0.010

**SUGGESTED PAD LAYOUT**



Symbol	Unit(mm)
A	1.06
B	1.06
C	0.54
D	3.2
E	1.08