

Surface Mount Zener Diodes

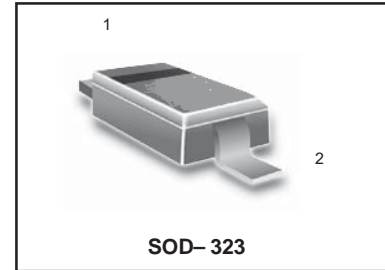
Features:

- *400mw Power Dissipation
- *Ideal for Surface Mounted Application
- *Zener Breakdown Voltage Range 3.6V to 36V
- *Pb-Free package is available
- *S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

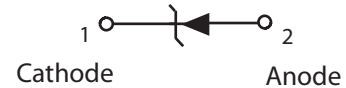
Mechanical Data:

- *Case : SOD-323 Molded plastic
- *Polarity: Cathode Indicated by Polarity Band
- *Marking: Marking Code (See Specific marking table)
- *Package Weight: 4.51 mg/unit

UDZSxxMB Series S-UDZSxxMB Series



Equivalent Circuit Diagram



Maximum Ratings and Electrical Characteristics (TA=25 °C Unless Otherwise Noted)

Characteristics	Symbol	Value	Unit
Power Dissipation	PD	400	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	312	°C/W
Junction and Storage Temperature Range	T _j ,TSTG	-55 to +150	°C

Device Marking Code

Device	Marking	Device	Marking
UDZS3.6MB	B6	UDZS12MB	BU
UDZS3.9MB	B7	UDZS13MB	BV
UDZS4.3MB	BT	UDZS15MB	BW
UDZS4.7MB	B9	UDZS16MB	B5
UDZS5.1MB	BA	UDZS18MB	BD
UDZS5.6MB	BC	UDZS20MB	BG
UDZS6.2MB	BE	UDZS22MB	BK
UDZS6.8MB	BF	UDZS24MB	BM
UDZS7.5MB	BH	UDZS27MB	BN
UDZS8.2MB	BJ	UDZS30MB	BP
UDZS9.1MB	BL	UDZS33MB	BR
UDZS10MB	B0	UDZS36MB	BS
UDZS11MB	B1	-	-

Ratings and Characteristic curves

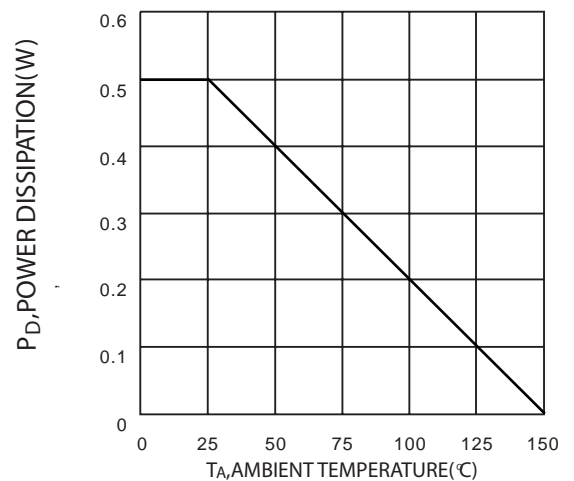


FIG. 1 Power Dissipation vs Ambient temperature



UDZSxxMB Series , S-UDZSxxMB Series

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted, $V_F=0.9\text{V Max@ } I_F=10\text{mA}$)

Device	Zener voltage			Operating resistance		Rising operating resistance		Reverse curre	
	$V_Z(\text{V})$			$Z_Z(\Omega)$		$Z_{zk}(\Omega)$		$I_R(\mu\text{A})$	
	Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)
UDZS3.6MB	3.530	3.670	5	85	5	600	1.0	2	1.0
UDZS3.9MB	3.820	3.980	5	85	5	600	1.0	2	1.0
UDZS4.3MB	4.210	4.390	5	80	5	600	1.0	1	1.0
UDZS4.7MB	4.610	4.790	5	70	5	500	1.0	0.5	1.0
UDZS5.1MB	5.000	5.200	5	50	5	480	1.0	0.1	1.0
UDZS5.6MB	5.490	5.710	5	30	5	400	1.0	0.1	1.0
UDZS6.2MB	6.080	6.320	5	10	5	150	1.0	0.1	2.0
UDZS6.8MB	6.660	6.940	5	8	5	80	1.0	0.1	3.0
UDZS7.5MB	7.350	7.650	5	7	5	50	1.0	0.1	5.0
UDZS8.2MB	8.040	8.360	5	7	5	50	1.0	0.1	6.1
UDZS9.1MB	8.920	9.280	5	10	5	50	1.0	0.1	6.8
UDZS10MB	9.800	10.200	5	15	5	70	1.0	0.1	7.5
UDZS11MB	10.780	11.220	5	20	5	70	1.0	0.1	8.2
UDZS12MB	11.760	12.240	5	20	5	90	1.0	0.1	9.0
UDZS13MB	12.740	13.260	5	26	5	110	1.0	0.1	9.7
UDZS15MB	14.700	15.300	5	30	5	110	1.0	0.1	11
UDZS16MB	15.680	16.320	5	40	5	170	1.0	0.1	12
UDZS18MB	17.640	18.360	5	45	5	170	1.0	0.1	14
UDZS20MB	19.600	20.400	5	55	5	220	1.0	0.1	15
UDZS22MB	21.560	22.440	5	55	5	220	1.0	0.1	17
UDZS24MB	23.520	24.480	5	70	5	220	1.0	0.1	18
UDZS27MB	26.460	27.540	5	80	5	220	1.0	0.1	20
UDZS30MB	29.400	30.600	5	80	5	220	1.0	0.1	22
UDZS33MB	32.340	33.660	5	80	5	220	1.0	0.1	24
UDZS36MB	35.280	36.720	5	80	5	220	1.0	0.1	27

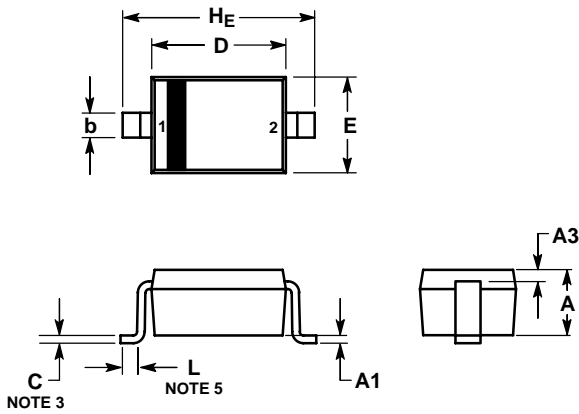
Notes) 1. The Zener voltage (V_Z) is measured 40ms after power is supplied.

2. The operating resistances (Z_Z , Z_{zk}) are measured by superimposing a minute alternating current on the regulated current (I_Z).



UDZSxxMB Series , S-UDZSxxMB Series

SOD-323



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: MILLIMETERS.
 3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
 4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
 5. DIMENSION L IS MEASURED FROM END OF RADIUS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
He	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*

