LITE-ON SEMICONDUCTORS

UDZS2V4BWF THRU UDZS36VBWF

SURFACE MOUNT
ZENER DIODE

REVERSE VOLTAGE – 2.4 to 36 Volts
POWER DISSIPATION – 0.2 Watts

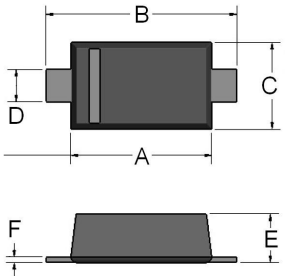
FEATURES

- Wide Zener Voltage Range Selection, 2.4V to 36V
- Flat Lead SOD-323F Plastic Package
- Surface Device Type Mounting
- Green EMC
- Matte Tin(Sn) Lead Finish
- RoHS compliant
- Band Indicates Cathode

MECHANICAL DATA

- Case: SOD-323F Plastic

SOD-323F

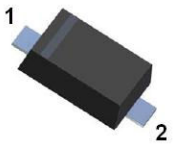


SOD-323F		
DIM.	MIN.	MAX.
A	1.60	1.80
B	2.30	2.70
C	1.15	1.35
D	0.25	0.40
E	0.80	1.00
F	0.05	0.25
All Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

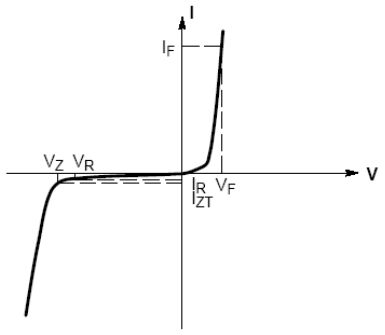
Characteristic	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Storage Temperature Range	T_{STG}	-65 to +150	°C
Operating Temperature Range	T_{OPR}	-65 to +150	°C

Device Marking :

Device P/N	Marking	Pin Diagram	Equivalent Circuit Diagram
UDZSxxxBWF	See below table		

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Symbol	Parameter
V_Z	Reverse Zener Voltage @ IZT
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ IZT
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ IZK
I_R	Reverse Leakage Current @ VR
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ IF



Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	Device Marking	V_Z @ I_{ZT} (Volts)		I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_{ZK} (mA)	Z_{ZK} @ I_{ZK} (Ω) Max	I_R @ V_R (uA) Max	V_R (Volts)
		Min	Max						
UDZS2V4BWF	D=	2.43	2.63	5	100	0.5	1000	120	1
UDZS2V7BWF	DΞ	2.69	2.91	5	110	0.5	1000	100	1
UDZS3V0BWF	D>	3.01	3.22	5	120	0.5	1000	50	1
UDZS3V3BWF	D<	3.32	3.53	5	120	0.5	1000	20	1
UDZS3V6BWF	D0	3.60	3.85	5	90	1	600	4.5	1
UDZS3V9BWF	D1	3.89	4.16	5	90	1	600	2.7	1
UDZS4V3BWF	D2	4.17	4.43	5	90	1	600	2.7	1
UDZS4V7BWF	D3	4.55	4.75	5	80	1	500	2.7	2
UDZS5V1BWF	D4	4.98	5.20	5	60	1	500	1.8	2
UDZS5V6BWF	D5	5.49	5.73	5	40	1	300	0.9	2
UDZS6V2BWF	D6	6.06	6.33	5	40	1	150	2.7	4
UDZS6V8BWF	D7	6.65	6.93	5	30	1	75	1.8	4
UDZS7V5BWF	D8	7.28	7.60	5	30	1	75	0.9	5
UDZS8V2BWF	D9	8.02	8.36	5	30	1	75	0.63	5
UDZS9V1BWF	DA	8.85	9.23	5	30	1	90	0.45	6
UDZS10VBWF	DB	9.77	10.21	5	20	1	150	0.18	7
UDZS11VBWF	DC	10.76	11.22	5	20	1	150	0.09	8
UDZS12VBWF	DE	11.74	12.24	5	20	1	150	0.09	8
UDZS13VBWF	DF	12.91	13.49	5	40	1	160	0.09	8
UDZS15VBWF	DG	14.34	14.98	5	40	1	190	0.045	10.5
UDZS16VBWF	DH	15.85	16.51	5	40	1	190	0.045	11.2
UDZS18VBWF	DJ	17.56	18.35	5	50	1	220	0.045	12.6
UDZS20VBWF	DK	19.52	20.39	5	60	1	220	0.045	14.0
UDZS22VBWF	DL	21.54	22.47	5	80	1	240	0.045	15.4
UDZS24VBWF	DM	23.72	24.78	5	80	1	240	0.045	16.8
UDZS27VBWF	DN	26.19	27.53	5	100	0.5	300	0.045	18.9
UDZS30VBWF	DP	29.19	30.69	5	100	0.5	300	0.045	21.0
UDZS33VBWF	DR	32.15	33.79	5	100	0.5	310	0.045	23.0
UDZS36VBWF	DS	35.07	36.87	5	100	0.5	330	0.045	25.2

- **V_F Forward Voltage = 1 V Maximum @ I_F = 10 mA for all types**

Notes:
1. The Zener Voltage (VZ) is tested under pulse condition of 10mS.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Liteon Semiconductor Corp. representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

UDZS2V4BWF THRU UDZS36VBWF
Typical Electrical Characteristics

Fig.1 Power Derating Curve

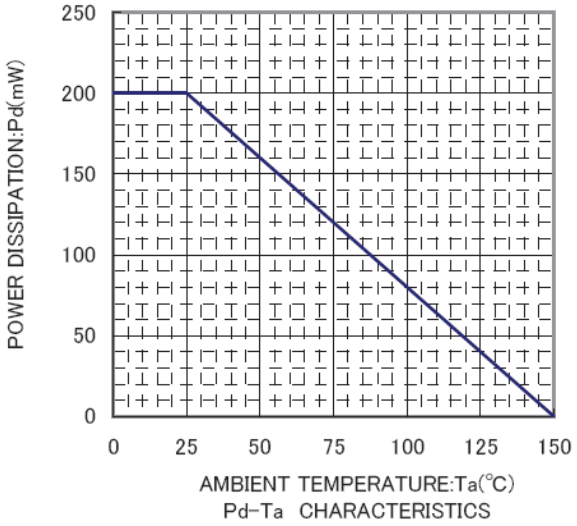


Fig.2 Typical Zener PRSM Characteristic

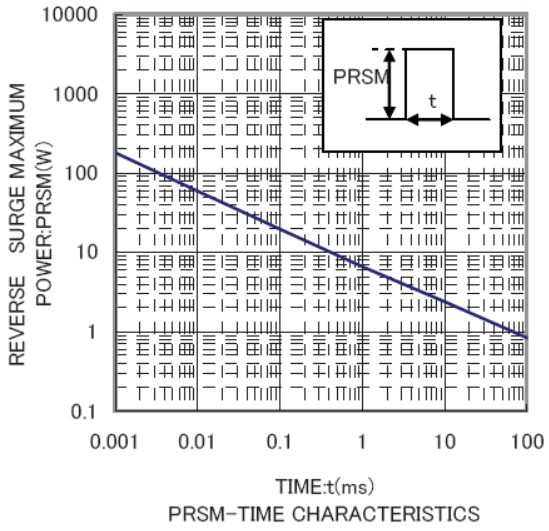


Fig.3 Typical Zener Voltage vs. Temp. Co-efficience

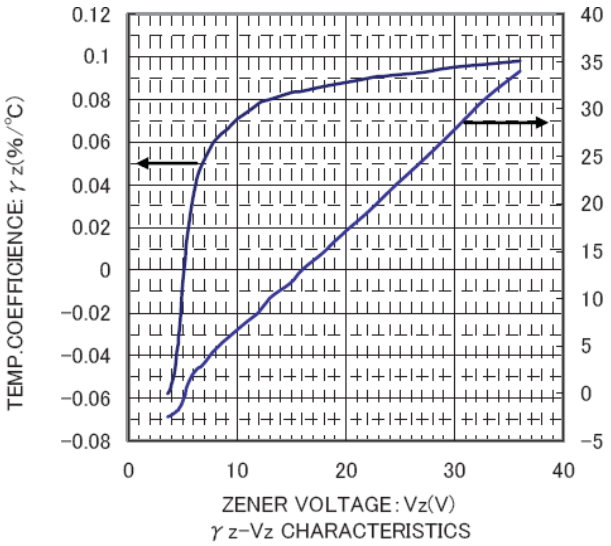


Fig.4 Transient Thermal Impedance vs. Rth-t.

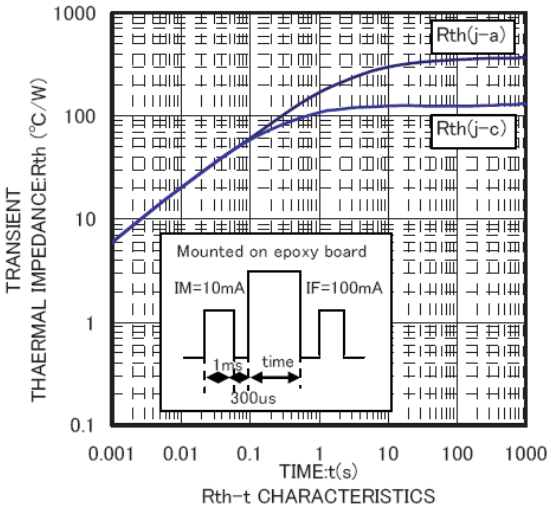


Fig.5 Typical Zener Breakdown Characteristics

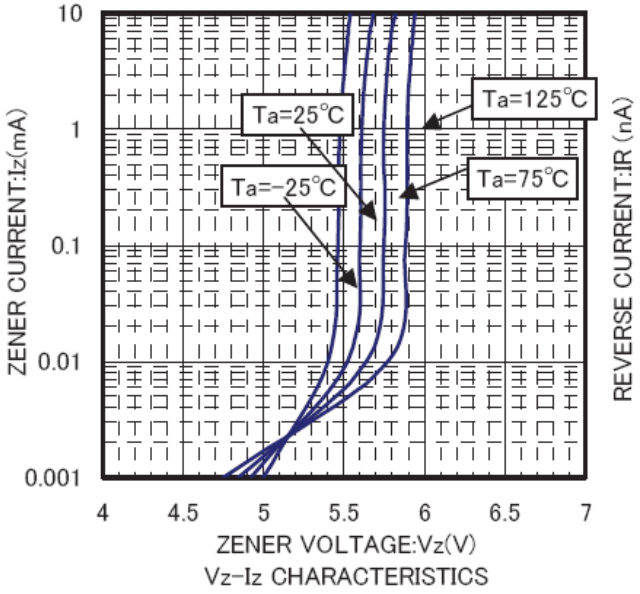
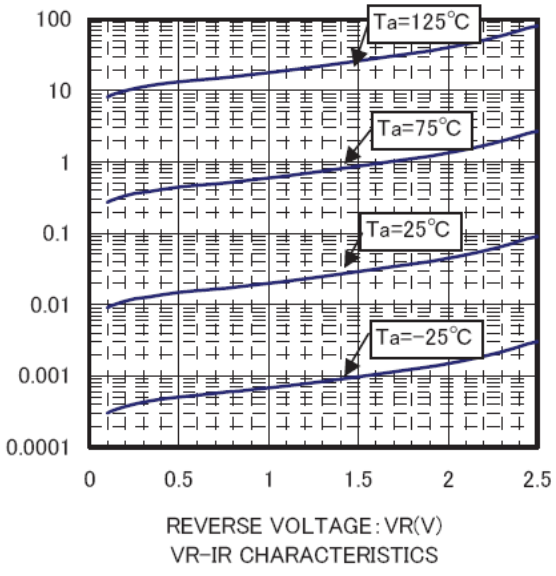


Fig.6 Typical Leakage Current



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Typical Electrical Characteristics

Fig.7 Typical Zener Current vs. Zener Impedance

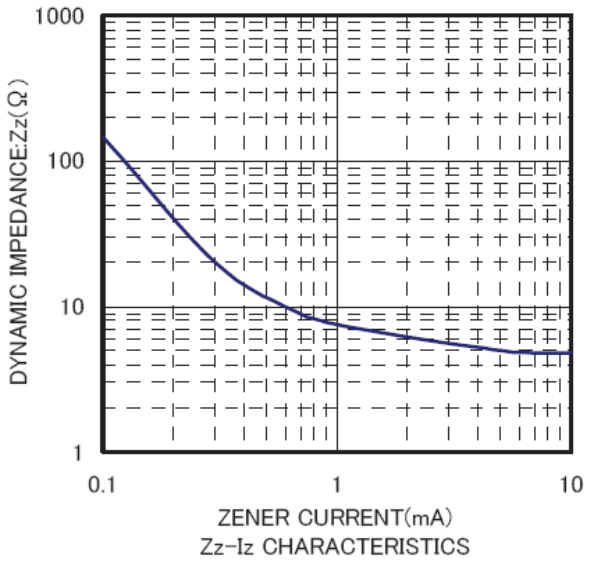
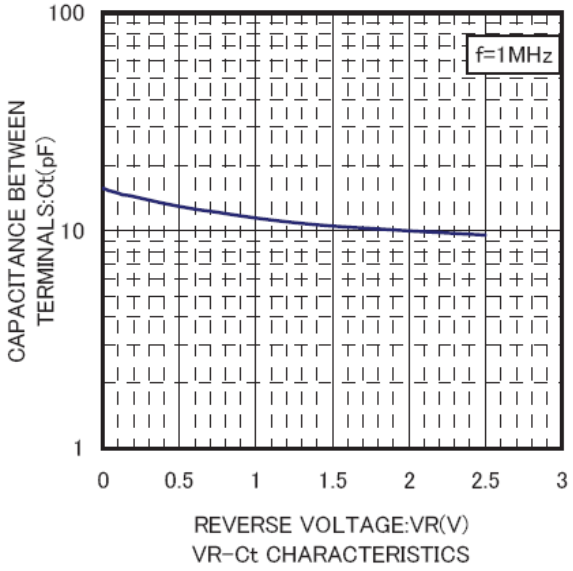


Fig.8 Typical Capacitance vs. Reverse Voltage



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