1N4099UB thru 1N4135UB
1N4614UB thru 1N4627UB

Low Noise Zener Diode Series

Rev. V3

Features

- Available in JAN, JANTX, JANTXV and JANS per MIL-PRF-19500/435
- Tight tolerances available in plus or minus 2% or 1% with C or D suffix respectively.
- 500 mW power handling
- Hermetically sealed ceramic surface mount package
- Also available in axial-leaded glass DO-35 and DO-213AA MELF packages

Electrical Specifications: T_C = +25°C (unless otherwise specified)

JEDEC TYPE No. (Note1)	Normal Zener Voltage VZ @ IZT	Zener Test Current IZT	Maximum Zener Impedance ZZT	Maximum Reverse Current IR @ VR		Maximum Zener Current IZM
	Volts	µA	Ohms	µA	Volts	mA
1N4099UB	6.8	250	200	1.0	5.2	56
1N4100UB	7.5	250	200	1.0	5.7	51
1N4101UB	8.2	250	200	0.5	6.3	46
1N4102UB	8.7	250	200	0.5	6.7	44
1N4103UB	9.1	250	200	0.5	7.0	42
1N4104UB	10	250	200	0.5	7.6	38
1N4105UB	11	250	200	0.05	8.5	35
1N4106UB	12	250	200	0.05	9.2	32
1N4107UB	13	250	200	0.05	9.9	29
1N4108UB	14	250	200	0.05	10.7	27
1N4109UB	15	250	100	0.05	11.4	25
1N4110UB	16	250	100	0.05	12.2	24
1N4111UB	17	250	100	0.05	13.0	22
1N4112UB	18	250	100	0.05	13.7	21
1N4113UB	19	250	150	0.05	14.5	20
1N4114UB	20	250	150	0.01	15.2	19
1N4115UB	22	250	150	0.01	16.8	17
1N4116UB	24	250	150	0.01	18.3	16
1N4117UB	25	250	150	0.01	19.0	15
1N4118UB	27	250	150	0.01	20.5	14
1N4119UB	29	250	200	0.01	21.3	14
1N4120UB	30	250	200	0.01	22.8	13

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Electrical Specifications: T_C = +25°C (unless otherwise specified)

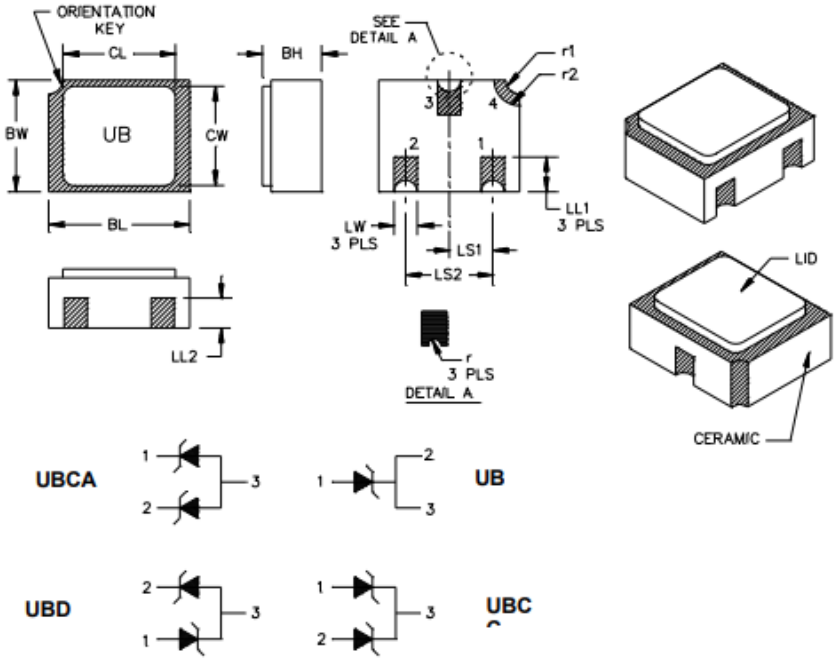
JEDEC TYPE No. (Note1)	Normal Zener Voltage VZ @ IZT	Zener Test Current IZT	Maximum Zener Impedance ZZT	Maximum Reverse Current IR @ VR		Maximum Zener Current IZM
	Volts	A	Ohms	µA	Volts	mA
1N4121UB	33	250	200	0.01	25.1	12
1N4122UB	36	250	200	0.01	27.4	11
1N4123UB	39	250	200	0.01	29.7	9.8
1N4124UB	43	250	250	0.01	32.7	8.9
1N4125UB	47	250	250	0.01	35.8	8.1
1N4126UB	51	250	300	0.01	38.8	7.5
1N4127UB	56	250	300	0.01	42.6	6.7
1N4128UB	60	250	400	0.01	45.6	6.4
1N4129UB	62	250	500	0.01	47.1	6.1
1N4130UB	68	250	700	0.01	51.7	5.6
1N4131UB	75	250	700	0.01	57.0	5.1
1N4132UB	82	250	800	0.01	62.4	4.6
1N4133UB	87	250	1000	0.01	66.2	4.4
1N4134UB	91	250	1200	0.01	69.2	4.2
1N4135UB	100	250	1500	0.01	76.0	3.8
1N4614UB	1.8	250	1200	3.5	1.0	120
1N4615UB	2	250	1250	2.5	1.0	110
1N4616UB	2.2	250	1300	2.0	1.0	100
1N4617UB	2.4	250	1400	1.0	1.0	95
1N4618UB	2.7	250	1500	0.5	1.0	90
1N4619UB	3	250	1600	0.4	1.0	87
1N4620UB	3.3	250	1650	3.5	1.5	85
1N4621UB	3.6	250	1700	3.5	2.0	83
1N4622UB	3.9	250	1650	2.5	2.0	80
1N4623UB	4.3	250	1600	2.0	2.0	77
1N4624UB	4.7	250	1550	5.0	3.0	75
1N4625UB	5.1	250	1500	5.0	3.0	70
1N4626UB	5.6	250	1400	5.0	4.0	65
1N4627UB	6.2	250	1200	5.0	5.0	61

1. The JEDEC type numbers shown with no suffix have a standard tolerance of +5% on the nominal Zener voltage; suffix C is used to identify +2%: and suffix D is used identify +1% tolerance. Vz is measured with the diode in thermal equilibrium in 25°C still air.

Absolute Maximum Ratings

Parameter	Absolute Maximum
Steady State Power Dissipation	0.5 W
Forward Voltage	1.1 V @ 200 mA
Thermal Resistance	90°C/W
Operating & Storage Temperature	-65°C to +175°C

Outline Drawing (UB)

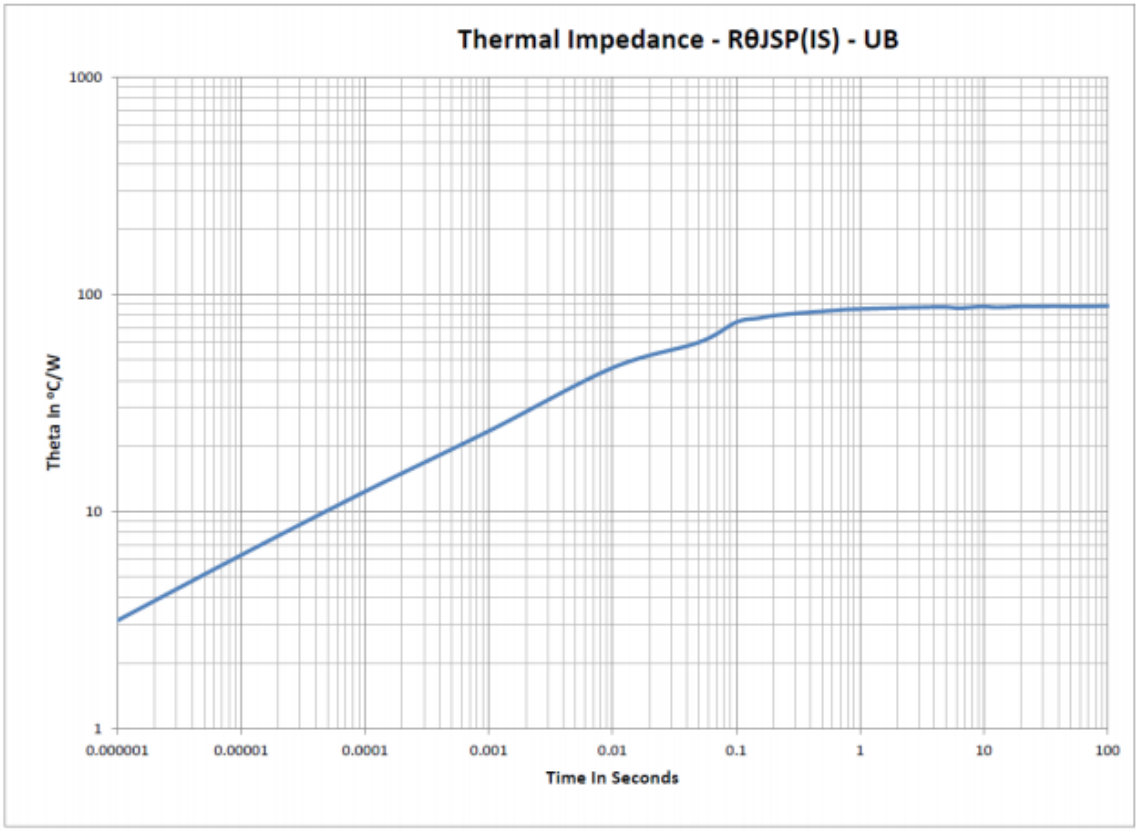


Symbol	Dimensions				Symbol	Dimensions			
	Inches		Millimeters			Inches		Millimeters	
	Min	Max	Min	Max		Min	Max	Min	Max
BH	.046	.056	1.17	1.42	LS1	.035	.039	0.89	0.99
BL	.115	.128	2.92	3.25	LS2	.071	.079	1.80	2.01
BW	.085	.108	2.16	2.74	LW	.016	.024	0.41	0.61
CL		.128		3.25	r		.008		0.20
CW		.108		2.74	r1		.012		0.31
LL1	.022	.038	0.56	0.97	r2		.022		0.56
LL2	.017	.035	0.43	0.89					

NOTES:
1. Dimensions are in inches. Millimeters are given for general information only.
2. Ceramic package only.
3. Hatched areas on package denote metallized areas. Pad 4 = shielding, connected to the lid.
4. Dimensions are pre-solder dip.
5. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.

* FIGURE 3. Physical dimensions, surface mount (UB version).

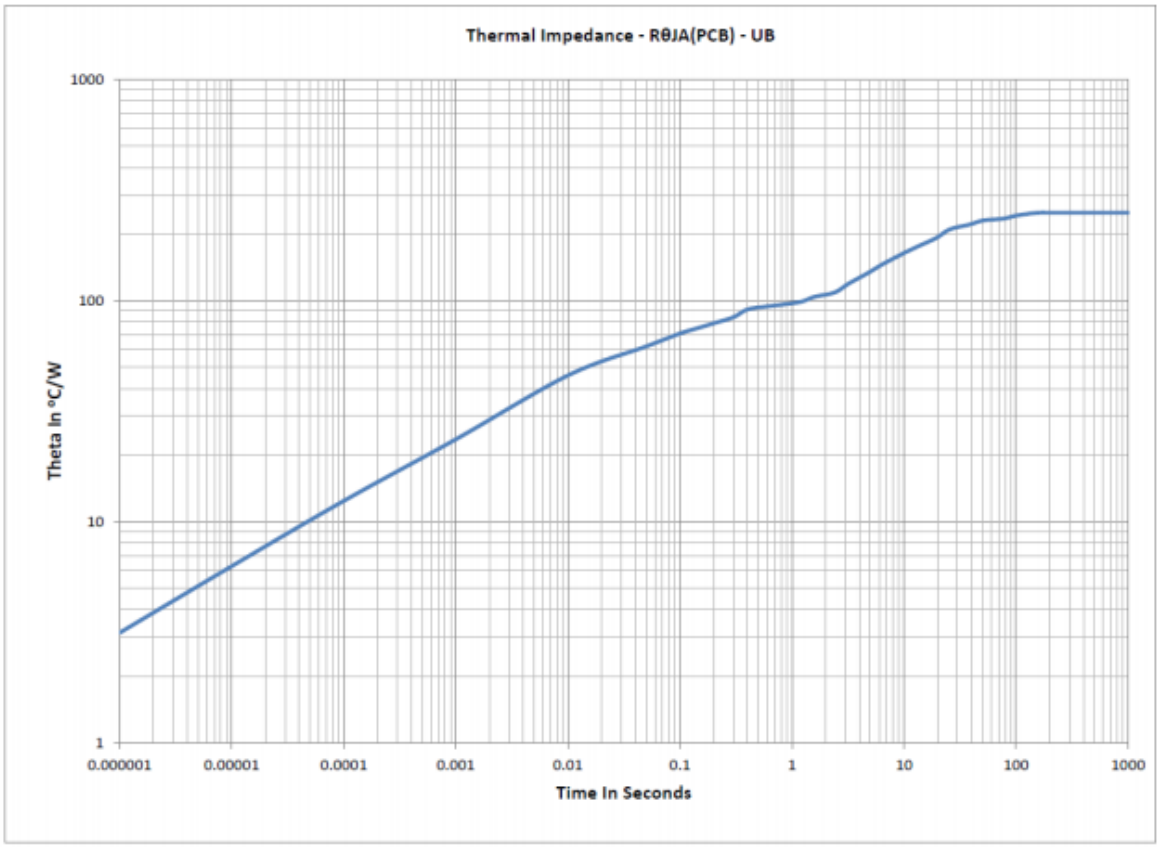
Thermal Impedance Curve



RΘJPCB(IS) = 90°C/W Thermal Impedance
Note: ZΘJX = 45 °C/W maximum @10mS

* FIGURE 15 Thermal impedance UB.

Thermal Impedance Curve



RθJA(PCB) = 250°C/W Thermal Impedance
Note: ZθJX = 45°C/W maximum @10mS

* FIGURE 16 Thermal impedance UB.