

# 1N746AUR-1 - 1N759AUR-1, 1N4370AUR-1 - 1N4372AUR-1

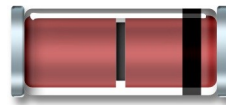


## Silicon Zener Diode Series

Rev. V2

### Features

- Metallurgically Bonded, Double Plugged Construction
- Leadless Package for Surface Mount
- Available in JAN, JANTX, JANTXV per MIL-PRF-19500 / 127



### Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

Part #	Nominal Zener Voltage $V_{ZT} @ I_{ZT}^1$	Zener Test Current <sup>2</sup> $I_{ZT}$	Maximum Zener Impedance <sup>3</sup> $Z_{ZT} @ I_{ZT}$	Maximum Reverse Current $I_R @ V_R$		Maximum Zener Current $I_{ZM}$
	V	mA	$\Omega$	$\mu\text{A}$	V	mA
1N746AUR-1	3.3	20	24	5	1.0	120
1N747AUR-1	3.6	20	22	3	1.0	110
1N748AUR-1	3.9	20	20	2	1.0	100
1N749AUR-1	4.3	20	18	2	1.0	90
1N750AUR-1	4.7	20	15	5	1.5	85
1N751AUR-1	5.1	20	14	5	2.0	75
1N752AUR-1	5.6	20	8	5	2.5	70
1N753AUR-1	6.2	20	3	5	3.5	65
1N754AUR-1	6.8	20	3	2	4.0	60
1N755AUR-1	7.5	20	4	2	5.0	55
1N756AUR-1	8.2	20	5	1	6.0	50
1N757AUR-1	9.1	20	6	1	7.0	45
1N758AUR-1	10.0	20	7	1	8.0	40
1N759AUR-1	12.0	20	10	1	9.0	35
1N4370AUR-1	2.4	20	30	100	1	155
1N4371AUR-1	2.7	20	30	60	1	140
1N4372AUR-1	3.0	20	29	30	1.0	125

1. Zener voltage tolerance on "A" suffix is +5%. No Suffix denotes +10% tolerance, "C" suffix denotes +2% tolerance and "D" suffix denotes +1% tolerance.
2. Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^\circ\text{C} \pm 3^\circ\text{C}$ .
3. Zener impedance is derived by superimposing on  $I_{ZT}$  A 60Hz rms AC current equal to 10% of  $I_{ZT}$ .

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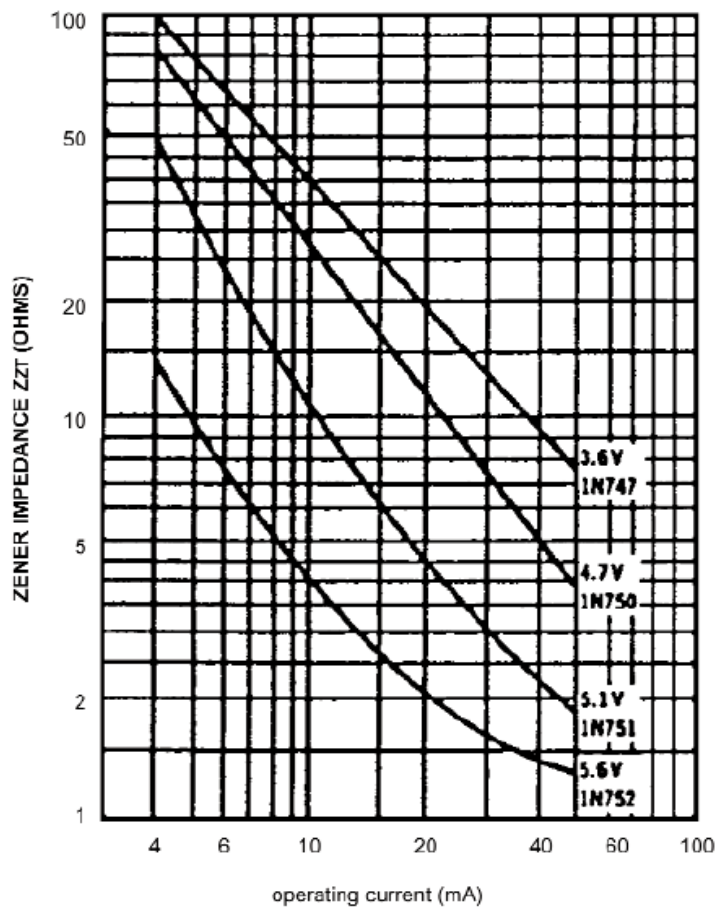
Rev. V2

### Absolute Maximum Ratings<sup>4,5</sup>

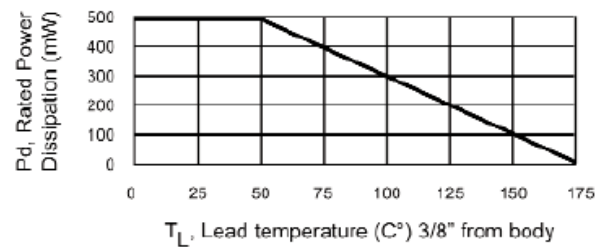
Parameter	Absolute Maximum
DC Power Dissipation	500 mW @ $T_{EC} = +125^{\circ}\text{C}$
Power Derating	10 mW / $^{\circ}\text{C}$ above $T_{EC} = +125^{\circ}\text{C}$
Forward Voltage	1.1 V @ 200 mA
Operating / Storage Temperature	$-65^{\circ}\text{C}$ to $+175^{\circ}\text{C}$

4. Exceeding any one or combination of these limits may cause permanent damage to this device.  
5. VPT Components does not recommend sustained operation near these survivability limits.

### Zener Impedance vs. Operating Current



### Power Derating Curve



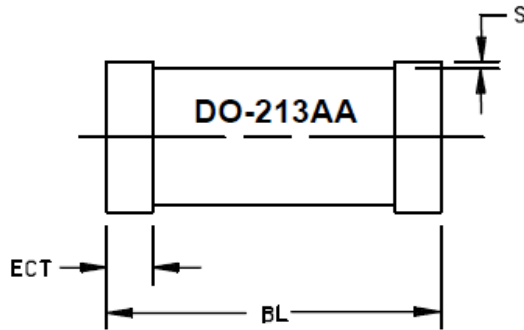
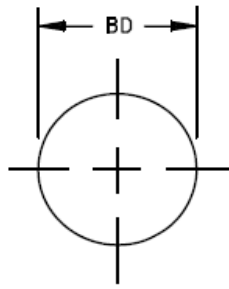
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Outline (DO – 213AA, Hermetically sealed glass case. (MELF, SOD-80, LL34)



### LEADED DESIGN DATA

CASE: DO – 213AA, Hermetically sealed glass case.  
(MELF, SOD-80, LL34)

LEAD FINISH: Tin / Lead

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any.

MOUNTING SURFACE SELECTION: The Axial Coefficient of Expansion (COE) Of this Device is Approximately +6 PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.

Dim.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
BL	0.130	0.146	3.30	3.71
BD	0.063	0.067	1.60	1.71
ECT	0.016	0.022	0.41	0.56
S	0.001 min		0.03 min	

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