


american
power devices, inc.
1N746A-1N759A
1N4370A-1N4372A

 Standard tolerances are 5%
 10%, 2% & 1% are available

500 mW industrial/commercial silicon zener diodes

FEATURES

- Zener voltage 2.4 to 12 V
- Available in JAN, JANTX and JANTXV qualified to MIL-S-19500/437 in 1N746A-1 to 1N759A-1 versions
- Hermetically sealed glass package

MAXIMUM RATINGS

- Junction Temperature: -65°C to +200°C
- Storage Temperature: -65°C to +200°C
- DC Power Dissipation: 500mW @ $T_J = 50^\circ\text{C}$
- Derate above 50°C: 3.33 mW/°C
- Forward Voltage @ 200 mA: 1.5 Volts max.

ELECTRICAL CHARACTERISTICS @ 25°C

Type Number (Note 1)	Nominal Zener Voltage $V_Z @ I_{ZT}$ (Note 2) Volts	Test Current I_{ZT} mA	Maximum Zener Impedance $Z_{ZT} @ I_{ZT}$ (Note 3) Ohms	*Maximum DC Zener Current I_{ZM} (Note 4) mA	Maximum Reverse Leakage Current	
					$T_A = 25^\circ\text{C}$ $I_R @ V_R = 1 \text{ V}$ μA	$T_A = 150^\circ\text{C}$ $I_R @ V_R = 1 \text{ V}$ μA
1N4370	2.4	20	30	150	100	200
1N4371	2.7	20	30	135	75	150
1N4372	3.0	20	29	120	50	100
1N746	3.3	20	28	110	10	30
1N747	3.6	20	24	100	10	30
1N748	3.9	20	23	95	10	30
1N749	4.3	20	22	85	2	30
1N750	4.7	20	19	75	2	30
1N751	5.1	20	17	70	1	20
1N752	5.6	20	11	65	1	20
1N753	6.2	20	7	60	0.1	20
1N754	6.8	20	5	55	0.1	20
1N755	7.5	20	6	50	0.1	20
1N756	8.2	20	8	45	0.1	20
1N757	9.1	20	10	40	0.1	20
1N758	10	20	17	35	0.1	20
1N759	12	20	30	30	0.1	20

MECHANICAL CHARACTERISTICS

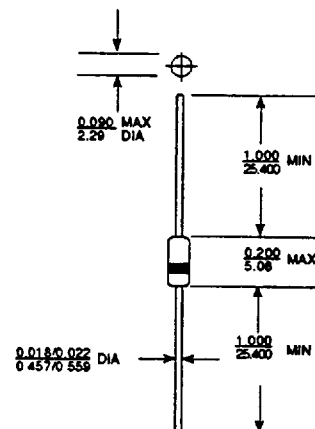


FIGURE 1 all dimensions in INCH mm

CASE: Hermetically sealed glass package (DO-35)
 FINISH: Corrosion resistant.
 Leads are tin plated.
 THERMAL RESISTANCE:
 200°C/W junction to lead at 0.375-inches from body.
 POLARITY: Cathode banded.
 WEIGHT: 0.2 grams (typ).

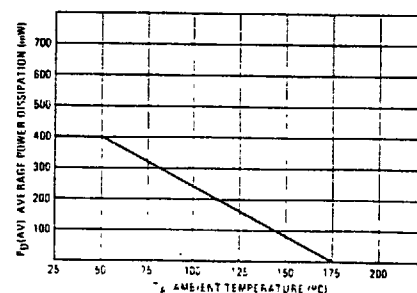
This series also offered in DO-7 package.
 Consult factory for availability.

Note 1 The JEDEC type numbers shown with no suffix have a $\pm 10\%$ tolerance on nominal V_Z . Suffix A denotes a $\pm 5\%$ tolerance. C denotes a $\pm 2\%$ tolerance and D denotes a $\pm 1\%$ tolerance.

Note 2 Voltage measurement performed with the device junction in thermal equilibrium with lead temperature of $30^\circ\text{C} \pm 1^\circ\text{C}$ and 3/8" lead length.

Note 3 The zener impedance is derived from the 60 Hz ac voltage, which results when an ac current having an rms value equal to 10% of the DC zener current (I_{ZT}) is superimposed on I_{ZT} .

Note 4 The maximum current shown is based on the maximum voltage of a 10.0% 1N746 type unit. For closer tolerance units I_{ZM} for any device may be increased and is limited by the derating curve.





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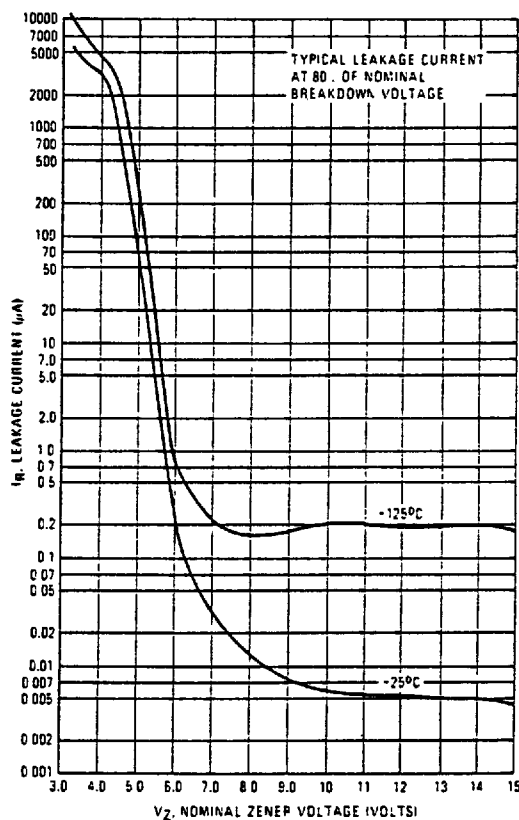


Figure 3 TYPICAL LEAKAGE CURRENT

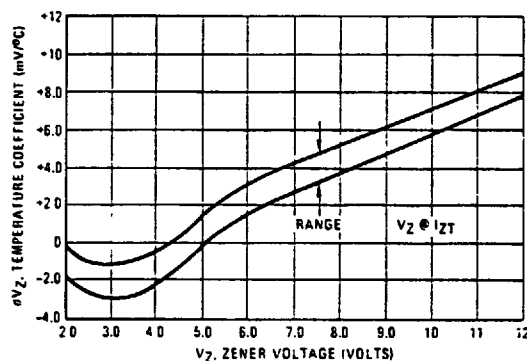
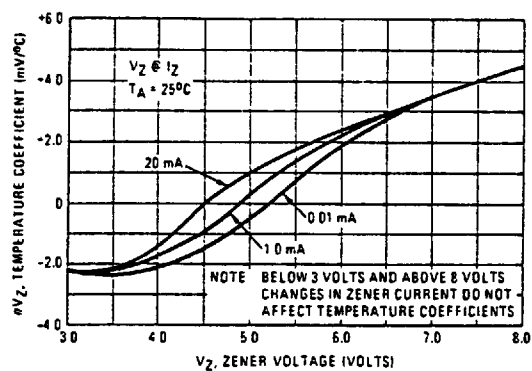


Figure 4 TEMPERATURE COEFFICIENTS