

9.0 VOLT
TEMPERATURE
COMPENSATED
ZENER REFERENCE
DIODES

FEATURES

- ZENER VOLTAGE 9.0V
- 1N935B, 937B, 938B, 940B HAVE JAN, JANTX, JANTXV, AND -1 QUALIFICATIONS TO MIL-S-19500/158
- S1N939A
- RADIATION HARDENED DEVICES AVAILABLE (SEE NOTE 5)

MAXIMUM RATINGS

Operating Temperature: -65°C to $+175^{\circ}\text{C}$.
Storage Temperature: -65°C to $+175^{\circ}\text{C}$
DC Power Dissipation: 500 mW @ 25°C .
Power Derating: 3.33 mW/ $^{\circ}\text{C}$ above 25°C .

*** ELECTRICAL CHARACTERISTICS**

@ 25°C , unless otherwise specified

JEDEC TYPE NUMBERS	ZENER VOLTAGE V_z @ I_z (NOTE 1 & 4)	ZENER TEST CURRENT I_z	MAXIMUM ZENER IMPEDANCE (NOTE 2) Z_{zt}	VOLTAGE TEMPERATURE STABILITY (NOTE 3 & 4) ΔV_z MAXIMUM	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT α_{Vz}
	VOLTS	mA	OHMS	mV	$^{\circ}\text{C}$	%/ $^{\circ}\text{C}$
1N935	8.55-9.45	7.5	20	67	0 to +75	0.01
1N935A	8.55-9.45	7.5	20	139	-55 to +100	0.01
1N935B	8.55-9.45	7.5	20	184	-55 to +150	0.01
1N936	8.55-9.45	7.5	20	33	0 to +75	0.005
1N936A	8.55-9.45	7.5	20	69	-55 to +100	0.005
1N936B	8.55-9.45	7.5	20	92	-55 to +150	0.005
1N937	8.55-9.45	7.5	20	13	0 to +75	0.002
1N937A	8.55-9.45	7.5	20	27	-55 to +100	0.002
1N937B	8.55-9.45	7.5	20	37	-55 to +150	0.002
1N938	8.55-9.45	7.5	20	6	0 to +75	0.001
1N938A	8.55-9.45	7.5	20	13	-55 to +100	0.001
1N938B	8.55-9.45	7.5	20	18	-55 to +150	0.001
1N939	8.55-9.45	7.5	20	3	0 to +75	0.0005
1N939A	8.55-9.45	7.5	20	7	-55 to +100	0.0005
1N939B	8.55-9.45	7.5	20	9	-55 to +150	0.0005
1N940	8.55-9.45	7.5	20	1.3	0 to +75	0.0002
1N940A	8.55-9.45	7.5	20	2.7	-55 to +100	0.0002
1N940B	8.55-9.45	7.5	20	3.7	-55 to +150	0.0002

* JEDEC Registered Data

NOTE 1 When ordering devices with tighter tolerances than specified, use a nominal center voltage of 9.2V.

NOTE 2 Measured by superimposing 0.75 mA ac rms on 7.5 mA DC @ 25°C .

NOTE 3 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specified mV change at any discrete temperature between the established limits.

NOTE 4 Voltage measurements to be performed 15 seconds after application of DC current.

NOTE 5 Designate Radiation Hardened devices with "RH" prefix instead of "1N", i.e. RH938A instead of 1N938A.

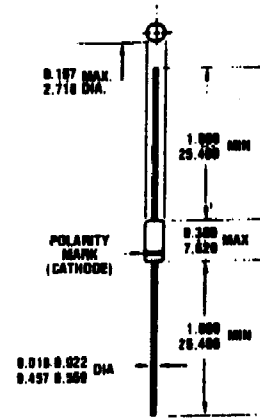


FIGURE 1
INCH
All dimensions in mm.

MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed glass case, DO-7.

FINISH: All external surfaces are corrosion resistant and leads solderable.

THERMAL RESISTANCE: $300^{\circ}\text{C}/\text{W}$ (Typical) junction to lead at 0.375-inches from body.

POLARITY: Diode to be operated with the banded end positive with respect to the opposite end.

WEIGHT: 0.2 grams.

MOUNTING POSITION: Any.