

High-reliability discrete products and engineering services since 1977

1N935(A)(B)(UR)-1N935(A)(B)(UR)

TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.
- Available as surface mount by adding "UR" suffix.

MAXIMUM RATINGS

Characteristics Values	
Junction and storage temperatures	-65 to +175°C
DC power dissipation 500mW @ $T_L = 25^{\circ}\text{C}$ and maximum current I_{ZM} of 50 mA. For optimum voltage temp stability, $I_Z = 7.5 \text{mA}$ (less than 75 mW in dissipated power)	
Solder temperatures	260°C for 10 s (maximum)

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Part number	Zener voltage V _Z @ I _{ZT}	Zener test current I _{ZT}	Maximum zener impedance Z _{ZT} @ I _{ZT}	Voltage temperature stability △Vzr maximum	Temperature range	Effective temperature coefficient α_{VZ}
Notes 1	Notes 1 & 4		Note 2	Notes 3 & 4		αvz
	Volts	mA	Ohms	mV	°C	%/°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

Note 1. For devices with tighter tolerances, use a nominal voltage of 9.2V and add a hyphenated suffix to the part number for desired tolerance at the end of the part number,

Note 4. Voltage measurements to be performed 15 seconds after application of dc current

ie. – 2% Note 2. Measured by superimposing 0.75mA ac rms on 7.5 mA dc @ 25°C

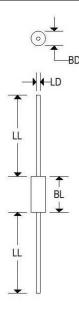
Note 3. The maximum allowable change observed over the entire temperature range, i.e. the diode voltage will not exceed the specified mV change at any discrete temperature between the established limits



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MECHANICAL CHARACTERISTICS

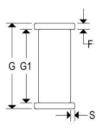
Case DO-35 hermetically sealed glass		
Marking	Body painted, alpha numeric	
Polarity	Cathode band	



	DO-35				
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	0.055	0.090	1.400	2.290	
BL	0.120	0.200	3.050	5.080	
LD	0.018	0.022	0.460	0.560	
LL	1.000	1.500	25.400	38.100	

Case	SOD-80
Marking	Alpha numeric
Polarity	Cathode band





	SOD-80				
	Inches		Millimeters		
	Min	Max	Min	Max	
D	0.055	0.067	1.397	1.702	
F	•	0.022	٠	0.559	
G	0.130	0.146	3.302	3.708	
G1	0.100 REF		2.540 REF		
S	0.001	٠	0.025	٠	

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