

1N5273 thru 1N5281

**ELECTRICAL CHARACTERISTICS**

( $T_A = 25^\circ\text{C}$  unless otherwise noted. Based on dc measurements at thermal equilibrium; lead length = 3/8"; thermal resistance of heat sink =  $30^\circ\text{C/W}$ ).  $V_F = 1.1$  max @  $I_F = 200$  mA for all types.

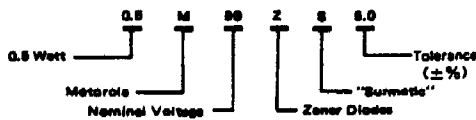
JEDEC Type No. (Note 1)	Nominal Zener Voltage $V_Z @ I_{ZT}$ Volts (Notes 2 & 4)	Test Current $I_{ZT}$ mA	Max Zener Impedance A and B Suffix Only		Max Reverse Leakage Current			Max Zener Voltage Temperature Coefficient (A and B Suffix Only) $\theta_{VZ}$ (%/°C) (Note 3)	
			$Z_{ZT} @ I_{ZT}$ Ohms	$Z_{ZK} @ I_{ZK} = 0.25$ mA Ohms	A and B Suffix Only		Non-Suffix		
					$I_R @ V_R$ $\mu\text{A}$	$V_R$ Volts	$I_R @ V_R$ Used For Suffix A $\mu\text{A}$		
1N5273	120	1.0	900	4000	0.1	88	91	10	+0.110
1N5274	130	0.98	1100	4800	0.1	94	99	10	+0.110
1N5275	140	0.90	1300	4800	0.1	101	106	10	+0.110
1N5276	150	0.88	1500	5000	0.1	108	114	10	+0.110
1N5277	160	0.80	1700	5800	0.1	116	122	10	+0.110
1N5278	170	0.74	1900	5800	0.1	118	129	10	+0.110
1N5279	180	0.68	2200	6000	0.1	130	137	10	+0.110
1N5280	190	0.68	2400	6800	0.1	137	144	10	+0.110
1N5281	200	0.68	2500	7000	0.1	144	152	10	+0.110

**NOTE 1. TOLERANCE AND VOLTAGE DESIGNATION**

**Tolerance Designation** - The JEDEC type numbers shown indicate a tolerance of  $\pm 10\%$  with guaranteed limits on only  $V_Z$ ,  $I_R$ , and  $V_F$  as shown in the above table. Units with guaranteed limits on all six parameters are indicated by suffix "A" for  $\pm 10\%$  tolerance and suffix "B" for  $\pm 5.0\%$  units.

**Non-Standard Voltage Designation** - To designate units with zener voltages other than those assigned JEDEC numbers, the Motorola type number should be used.

**EXAMPLE**



**NOTE 2. SPECIAL SELECTIONS AVAILABLE INCLUDE:**

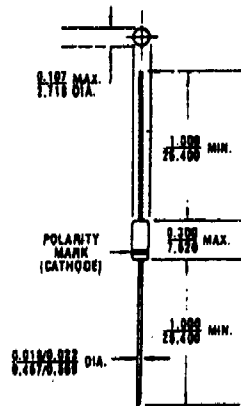
- Nominal zener voltages between those shown.
- Matched sets (standard tolerances are  $\pm 5.0\%$ ,  $\pm 2.0\%$ ,  $\pm 1.0\%$ ).
  - Two or more units for series connection with specified tolerance on total voltage. Series matched sets make zener voltages in excess of 200 volts possible as well as providing lower temperature coefficients, lower dynamic impedance and greater power handling ability.
  - Two or more units matched to one another with any specified tolerance.
- Tight voltage tolerances: 1.0%, 2.0%, 3.0%.

**NOTE 3. TEMPERATURE COEFFICIENT ( $\theta_{VZ}$ )**

Test conditions for temperature coefficient are as follows:

$$I_{ZT} = \text{Rated } I_{ZT}, T_1 = 25^\circ\text{C}, T_2 = 125^\circ\text{C}.$$

Device to be temperature stabilized with current applied prior to reading breakdown voltage at the specified ambient temperature.



**FIGURE 1**  
 All dimensions in INCH / m.m.

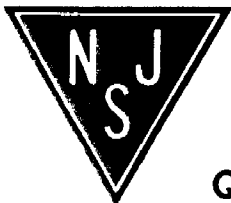
**MECHANICAL CHARACTERISTICS**

**CASE:** Hermetically sealed glass case, DO-7.

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

**THERMAL RESISTANCE:**  $300^\circ\text{C/W}$  (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.



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