



1EZ110D5 THRU 1EZ200D5

1 WATT SILICON ZENER DIODE



FEATURES

- * Zener voltage 110V to 200V
- * Withstands large surge stresses
- * Also available in glass. (See Note 6).

MECHANICAL CHARACTERISTICS

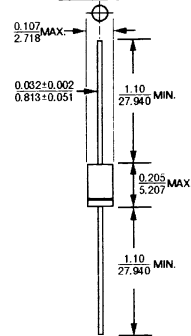
- * CASE: Molded encapsulation, axial lead package.
- * FINISH: Corrosion resistant. Leads are solderable.
- * THERMAL RESISTANCE: 75°C/Watt.
- * POLARITY: Banded end is cathode.
- * WEIGHT: 0.4 grams (Typical).

MAXIMUM RATINGS

Junction and Storage Temperatures: - 65°C to + 175°C
 DC Power Dissipation: 1 Watt
 Power Derating: 13.3mW/°C above 100°C
 Forward Voltage @ 200mA: 1.2 Volts

VOLTAGE RANGE
110 to 200 Volts

DO-41



* ELECTRICAL CHARACTERISTICS @ 25°C

JEDEC TYPE NUMBER (Note 1)	NOMINAL ZENER VOLTAGE (Note 2 & 5)		MAXIMUM ZENER IMPEDANCE Note 3			MAXIMUM RATED ZENER CURRENT @ 100°C	TYPICAL TEMP. COEF. OF ZENER VOLTAGE	MAXIMUM SURGE CURRENT IS	
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$					I_{ZM}
	VOLTS	mA	OHMS	OHMS	mA				mA
1EZ110D5	110	2.3	570	5200	0.25	8.3	+0.095	0.15	
1EZ120D5	120	2.0	710	5800	0.25	8.0	+0.095	0.14	
1EZ130D5	130	1.9	910	6500	0.25	6.9	+0.095	0.13	
1EZ140D5	140	1.8	1100	7000	0.25	6.5	+0.095	0.12	
1EZ150D5	150	1.7	1300	7500	0.25	5.7	+0.095	0.12	
1EZ160D5	160	1.6	1400	8000	0.25	5.4	+0.095	0.11	
1EZ170D5	170	1.5	1450	8500	0.25	5.2	+0.095	0.10	
1EZ180D5	180	1.4	1500	9000	0.25	4.9	+0.095	0.10	
1EZ190D5	190	1.3	1700	9500	0.25	4.7	+0.095	0.10	
1EZ200D5	200	1.2	1900	10000	0.25	4.6	+0.100	0.10	

NOTE 1 Suffix 5 indicates ± 5% tolerance. Suffix 10 indicates ± 10%, no suffix indicates ± 20%. Also, Suffix 1 indicates ± 1%, 2nd suffix indicates ± 2% on V_Z tolerance.

NOTE 2 Zener voltage (V_Z) is measured in still air at a temperature of 25°C. The test currents (I_{ZT}) have been selected so that at nominal voltages the dissipation is a constant 0.25 watts. This results in a nominal junction temperature rise of 10°C.

* JEDEC Registered Data

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} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .

NOTE 4 Maximum Surge Current is a non recurrent maximum peak reverse surge with a pulse width of 8.3 milliseconds at T_A 25°C (+8, -2°C)

NOTE 5 Voltage measurements to be performed 90 seconds after application of DC current.

RATINGS AND CHARACTERISTIC CURVES

(1EZ110D5 THRU 1EZ200D5)

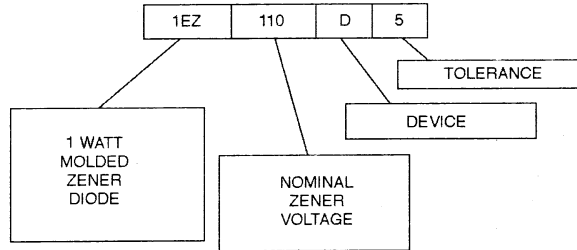


FIGURE 1

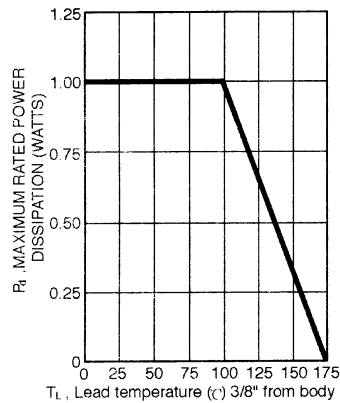


FIGURE 2 POWER DERATING CURVE



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