



3EZ3.9D5 THRU 3EZ200D5

3W SILICON ZENER DIODE



VOLTAGE RANG
3.9 to 200 Volts

FEATURES

- * Zener voltage 3.9V to 200V
- * High surge current rating
- * 3 Watts dissipation in a normally 1 watt package

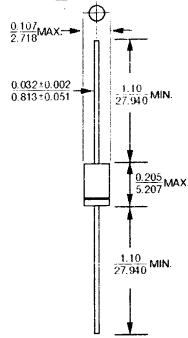
MECHANICAL CHARACTERISTICS

- * CASE: Molded encapsulation, axial lead package.
- * FINISH: Corrosion resistant. Leads are solderable.
- * THERMAL RESISTANCE: 45°C/Watt junction to lead at 0.375 inches from body.
- * POLARITY: Banded end is cathode.
- * WEIGHT: 0.4 grams (Typical).

MAXIMUM RATINGS

Junction and Storage Temperature: -65°C to +175°C
 DC Power Dissipation: 3 Watt
 Power Derating: 20mW/°C above 25°C
 Forward Voltage @ 200mA: 1.2 Volts

DO-41



All dimensions in inches
mm

* ELECTRICAL CHARACTERISTICS @ 25°C

TYPE NUMBER (Note 1)	NOMINAL VOLTAGE (Note 2)		MAXIMUM IMPEDANCE (Note 3)		MAXIMUM REVERSE LEAKAGE CURRENT IR @ VR	MAXIMUM ZENER CURRENT IZM	MAXIMUM SURGE CURRENT (Note 4) ISURGE
	Vz	Iz	ZzT @ IZT	ZzK @ IZK			
	VOLTS	mA	OHMS	OHMS			
3EZ3.9D5	3.9	192	4.5	400	1.0	80	630
3EZ4.3D5	4.3	174	4.5	400	1.0	30	590
3EZ4.7D5	4.7	160	4.0	500	1.0	20	550
3EZ5.1D5	5.1	147	2.5	550	1.0	5.0	520
3EZ5.6D5	5.6	134	2.5	600	1.0	5.0	480
3EZ6.2D5	6.2	121	1.5	700	1.0	5.0	435
3EZ6.8D5	6.8	110	2.0	700	1.0	5.0	393
3EZ7.5D5	7.5	100	2.0	700	0.5	5.0	360
3EZ8.2D5	8.2	91	2.3	700	0.5	5.0	330
3EZ9.1D5	9.1	82	2.5	700	0.5	3.0	297
3EZ10D5	10	75	3.5	700	0.25	3.0	270
3EZ11D5	11	68	4.0	700	0.25	1.0	225
3EZ12D5	12	63	4.5	700	0.25	1.0	208
3EZ13D5	13	58	4.5	700	0.25	0.5	208
3EZ14D5	14	53	5.0	700	0.25	0.5	193
3EZ15D5	15	50	5.5	700	0.25	0.5	180
3EZ16D5	16	47	5.5	700	0.25	0.5	169
3EZ17D5	17	44	6.0	750	0.25	0.5	150
3EZ18D5	18	42	6.0	750	0.25	0.5	159
3EZ19D5	19	40	7.0	750	0.25	0.5	142
3EZ20D5	20	37	8.0	750	0.25	0.5	135
3EZ22D5	22	34	8.0	750	0.25	0.5	123
3EZ24D5	24	31	9.0	750	0.25	0.5	112
3EZ27D5	27	26	10	750	0.25	0.5	20.6
3EZ28D5	28	27	12	750	0.25	0.5	96
3EZ30D5	30	25	16	1000	0.25	0.5	22.5
3EZ33D5	33	23	20	1000	0.25	0.5	25.1
3EZ36D5	36	21	22	1000	0.25	0.5	27.4
3EZ39D5	39	19	28	1000	0.25	0.5	29.7
3EZ43D5	43	17	33	1500	0.25	0.5	32.7
3EZ47D5	47	16	38	1500	0.25	0.5	38.6
3EZ51D5	51	15	45	1500	0.25	0.5	38.8
3EZ56D5	56	13	50	2000	0.25	0.5	42.6
3EZ62D5	62	12	55	2000	0.25	0.5	47.1
3EZ68D5	68	11	70	2000	0.25	0.5	51.7
3EZ75D5	75	10	85	2000	0.25	0.5	56
3EZ82D5	82	9	96	3000	0.25	0.5	36
3EZ91D5	91	8	115	3000	0.25	0.5	85.2
3EZ100D5	100	7.5	160	3000	0.25	0.5	76
3EZ110D5	110	6.8	225	4000	0.25	0.5	83.6
3EZ120D5	120	6.3	300	4500	0.25	0.5	91.2
3EZ130D5	130	5.8	375	5000	0.25	0.5	96.8
3EZ140D5	140	5.3	475	5000	0.25	0.5	105.4
3EZ150D5	150	5.0	550	6000	0.25	0.5	114
3EZ160D5	160	4.7	625	6500	0.25	0.5	121.6
3EZ170D5	170	4.4	650	7000	0.25	0.5	130.4
3EZ180D5	180	4.2	700	7000	0.25	0.5	136.8
3EZ190D5	190	4.0	800	8000	0.25	0.5	144.8
3EZ200D5	200	3.7	875	8000	0.25	0.5	152

NOTE 1 Suffix 1 indicates ± 1% tolerance. Suffix 2 indicates ± 2% tolerance. Suffix 3 indicates ± 3% tolerance. Suffix 4 indicates ± 4% tolerance. Suffix 5 indicates ± 5% tolerance. Suffix 10 indicates ± 10% , no suffix indicates ± 20% .

NOTE 2 Vz measured by applying Iz 40ms ± 10ms prior to reading. Mounting contacts are located 3/8" to 1/2" from inside edge of mounting clips. Ambient temperature, TA = 25°C (+ 8°C / - 2°C).

NOTE 3 Dynamic Impedance, Zz, measured by superimposing I ac RMS at 60 Hz on I DC where I ac RMS = 10% I DC .

NOTE 4 Maximum surge current is a maximum peak non - recurrent reverse surge with a maximum pulse width of 8.3 milliseconds.

* JEDEC Registered Data

RATING AND CHARACTERISTIC CURVES (3EZ3.9D5 THRU 3EZ200D5)

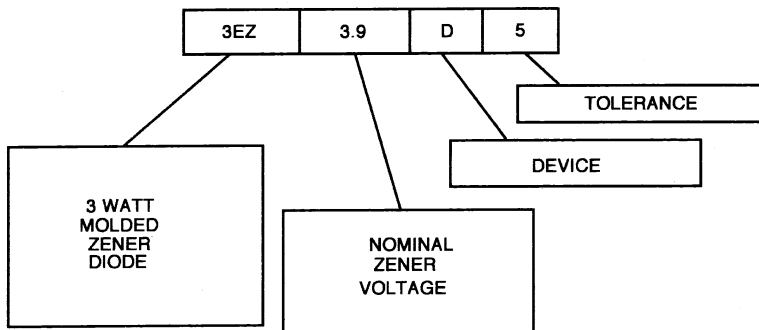


FIGURE 1

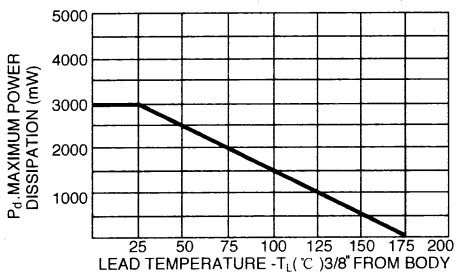


FIGURE 2 POWER DERATING CURVE