JGD

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

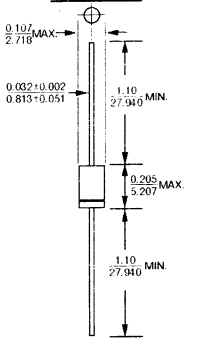
MECHANICAL CHARACTERISTICS

* CASE: Molded encapsulation, axial lead package.
* FINISH: Corrosion resistant. Leads are solderable.
* THERMAL RESISTANCE: 45℃/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℃ to + 175℃
DC Power Dissipation: 3 Watt
Power Derating: 20mW/℃ above 25℃
Forward Voltage @ 200mA: 1.2 Volts

DO-41



All dimensions in inches / mm

* ELECTRICAL CHARCTERISTICS @ 25℃

TYPE NUMBER (Note 1)	NOMINAL VOLTAGE (Note 2)		MAXIMUM IMPEDANCE (Note 3)			MAXIMUM REVERSE LEAKAGE CURRENT		MAXIMUM ZENER CURRENT	MAXIMUM SURGE CURRENT (Note 4)
	V_Z	I_Z	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		I_{ZM}	I_{SURGE}
	VOLTS	mA	OHMS	OHMS	mA	μA	VOLTS	mA	A
3EZ3.9D5	3.9	192	4.5	400	1.0	80	1.0	630	4.4
3EZ4.3D5	4.3	174	4.5	400	1.0	30	1.0	590	4.1
3EZ4.7D5	4.7	160	4.0	500	1.0	20	1.0	550	3.8
3EZ5.1D5	5.1	147	3.5	550	1.0	5.0	1.0	520	3.5
3EZ5.6D5	5.6	134	2.5	600	1.0	5.0	2.0	480	3.3
3EZ6.2D5	6.2	121	1.5	700	1.0	5.0	3.0	435	3.1
3EZ6.8D5	6.8	110	2.0	700	1.0	5.0	4.0	393	2.9
3EZ7.5D5	7.5	100	2.0	700	0.5	5.0	5.0	360	2.66
3EZ8.2D5	8.2	91	2.3	700	0.5	5.0	6.0	330	2.44
3EZ9.1D5	9.1	82	2.5	700	0.5	3.0	7.0	297	2.2
3EZ10D5	10	75	3.5	700	0.25	3.0	7.6	270	2.0
3EZ11D5	11	68	4.0	700	0.25	1.0	8.4	225	1.82
3EZ12D5	12	63	4.5	700	0.25	1.0	9.1	246	1.66
3EZ13D5	13	58	4.5	700	0.25	0.5	9.9	208	1.54
3EZ14D5	14	53	5.0	700	0.25	0.5	10.6	193	1.43
3EZ15D5	15	50	5.5	700	0.25	0.5	11.4	180	1.33
3EZ16D5	16	47	5.5	700	0.25	0.5	12.2	169	1.25
3EZ17D5	17	44	6.0	750	0.25	0.5	13	150	1.18
3EZ18D5	18	42	6.0	750	0.25	0.5	13.7	159	1.11
3EZ19D5	19	40	7.0	750	0.25	0.5	14.4	142	1.05
3EZ20D5	20	37	7.0	750	0.25	0.5	15.2	135	1.0
3EZ22D5	22	34	8.0	750	0.25	0.5	16.7	123	0.91
3EZ24D5	24	31	9.0	750	0.25	0.5	18.2	112	0.83
3EZ27D5	27	28	10	750	0.25	0.5	20.6	100	0.74
3EZ28D5	28	27	12	750	0.25	0.5	21	96	0.71
3EZ30D5	30	25	16	1000	0.25	0.5	22.5	90	0.67
3EZ33D5	33	23	20	1000	0.25	0.5	25.1	82	0.61
3EZ36D5	36	21	22	1000	0.25	0.5	27.4	75	0.56
3EZ39D5	39	19	28	1000	0.25	0.5	29.7	69	0.51
3EZ43D5	43	17	33	1500	0.25	0.5	32.7	63	0.45
3EZ47D5	47	16	38	1500	0.25	0.5	35.6	57	0.42
3EZ51D5	51	15	45	1500	0.25	0.5	38.8	53	0.39
3EZ56D5	56	13	50	2000	0.25	0.5	42.6	48	0.36
3EZ62D5	62	12	55	2000	0.25	0.5	47.1	44	0.32
3EZ68D5	68	11	70	2000	0.25	0.5	51.7	40	0.29
3EZ75D5	75	10	85	2000	0.25	0.5	56	36	0.27
3EZ82D5	82	9.1	95	3000	0.25	0.5	62.2	33	0.24
3EZ91D5	91	8.2	115	3000	0.25	0.5	69.2	30	0.22
3EZ100D5	100	7.5	160	3000	0.25	0.5	76	27	0.20
3EZ110D5	110	6.8	225	4000	0.25	0.5	83.6	25	0.18
3EZ120D5	120	6.3	300	4500	0.25	0.5	91.2	22	0.16
3EZ130D5	130	5.8	375	5000	0.25	0.5	98.8	21	0.15
3EZ140D5	140	5.3	475	5000	0.25	0.5	106.4	19	0.14
3EZ150D5	150	5.0	550	6000	0.25	0.5	114	18	0.13
3EZ160D5	160	4.7	625	6500	0.25	0.5	121.6	17	0.12
3EZ170D5	170	4.4	650	7000	0.25	0.5	130.4	16	0.12
3EZ180D5	180	4.2	700	7000	0.25	0.5	136.8	15	0.11
3EZ190D5	190	4.0	800	8000	0.25	0.5	144.8	14	0.10
3EZ200D5	200	3.7	875	8000	0.25	0.5	152	13	0.10

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, T_A = 25℃ (+ 8℃/ – 2℃).

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)

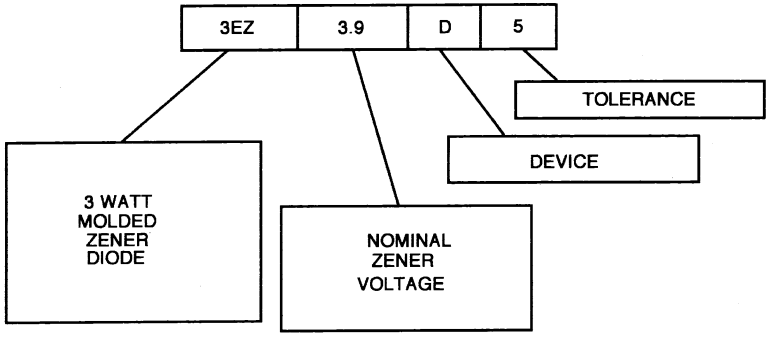


FIGURE 1

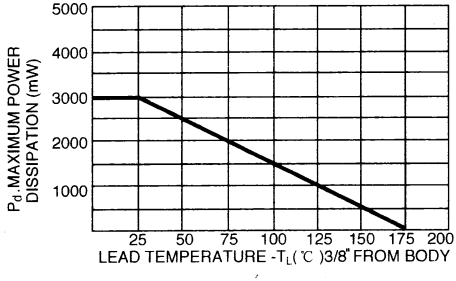


FIGURE 2 POWER DERATING CURVE