



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

3EZ6.2  
THRU  
3EZ200

**TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED JUNCTION ZENER DIODES**

**VOLTAGE RANGE - 6.2 to 200 Volts**

**CURRENT - 3.0 Watts**

**FEATURES**

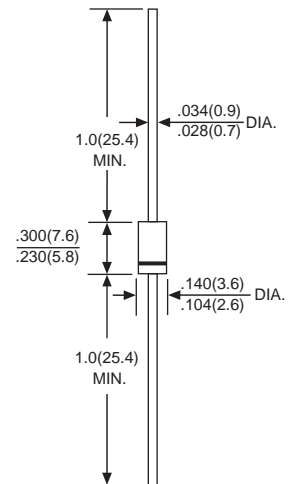
- \* Voltage Range:6.2V to 200V
- \* Build-in strain relief
- \* Glass passivated junction
- \* Low inductance
- \* Excellent clamping capability
- \* Low profile package

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.38 gram approx.



DO-15



Dimensions in inches(millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation (Notes 1) at Tamb=50°C	Ptot	3	W
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	IFSM	15	Amps
Maximum Forward Voltage at IF=500mA	VF	1.5	Volts
Operating and Storage Temperature	TJ,Tstg	-55 to + 150	°C

Notes: 1. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

# RATING AND CHARACTERISTIC CURVES (3EZ6.2 THRU 3EZ200)

TYPE	Nominal Zener Voltage V <sub>Z</sub> @I <sub>ZT</sub>	Zener Test Current I <sub>ZT</sub> mA	Maximum Zener Impedance		I <sub>ZK</sub> mA	Maximum Reverse Leakage Current		Maximum Regulator Current I <sub>ZM</sub> mA
			Z <sub>ZT</sub> @I <sub>ZT</sub> Ohms	Z <sub>ZK</sub> @I <sub>ZK</sub> Ohms		I <sub>R</sub> uA	@V <sub>R</sub> Volts	
3EZ6.2	6.2	121	1.5	700	1.00	5.0	3.0	435
3EZ6.8	6.8	110	2.0	700	1.00	50.0	4.0	393
3EZ7.5	7.5	100	2.0	700	0.50	50.0	5.0	360
3EZ8.2	8.2	91	2.3	700	0.50	50.0	6.0	330
3EZ9.1	9.1	82	2.5	700	0.50	50.0	7.0	297
3EZ10	10	75	3.5	700	0.25	50.0	7.6	270
3EZ11	11	68	4.0	700	0.25	1.0	8.4	225
3EZ12	12	63	4.5	700	0.25	1.0	9.1	246
3EZ13	13	58	4.5	700	0.25	0.5	9.9	208
3EZ14	14	53	5.0	700	0.25	0.5	10.6	193
3EZ15	15	50	5.5	700	0.25	0.5	11.4	180
3EZ16	16	47	5.5	700	0.25	0.5	12.2	169
3EZ17	17	44	6.0	750	0.25	0.5	13.0	159
3EZ18	18	42	6.0	750	0.25	0.5	13.7	159
3EZ19	19	40	7.0	750	0.25	0.5	14.4	142
3EZ20	20	37	7.0	750	0.25	0.5	15.2	135
3EZ22	22	34	8.0	750	0.25	0.5	16.7	123
3EZ24	24	31	9.0	750	0.25	0.5	18.2	112
3EZ27	27	28	10	750	0.25	0.5	20.6	100
3EZ30	30	25	16	1000	0.25	0.5	22.5	90
3EZ33	33	23	20	1000	0.25	0.5	25.1	82
3EZ36	36	21	22	1000	0.25	0.5	27.4	75
3EZ39	39	19	28	1000	0.25	0.5	29.7	69
3EZ43	43	17	33	1500	0.25	0.5	32.7	63
3EZ47	47	16	38	1500	0.25	0.5	35.6	57
3EZ51	51	15	45	1500	0.25	0.5	38.8	53
3EZ56	56	13	50	2000	0.25	0.5	42.6	48
3EZ62	62	12	55	2000	0.25	0.5	47.1	44
3EZ68	68	11	70	2000	0.25	0.5	51.7	40
3EZ75	75	10	85	2000	0.25	0.5	56.0	36
3EZ82	82	9.1	95	3000	0.25	0.5	62.2	33
3EZ91	91	8.2	115	3000	0.25	0.5	69.2	30
3EZ100	100	7.5	160	3000	0.25	0.5	76.0	27
3EZ110	110	6.8	225	4000	0.25	0.5	83.6	25
3EZ120	120	6.3	300	4500	0.25	0.5	91.2	22
3EZ130	130	5.8	375	5000	0.25	0.5	98.8	21
3EZ140	140	5.3	475	5000	0.25	0.5	106.4	19
3EZ150	150	5.0	550	6000	0.25	0.5	114.0	18
3EZ160	160	4.7	625	6500	0.25	0.5	121.6	17
3EZ170	170	4.4	650	7000	0.25	0.5	130.4	16
3EZ180	180	4.2	700	7000	0.25	0.5	136.8	15
3EZ190	190	4.0	800	8000	0.25	0.5	144.8	14
3EZ200	200	3.7	875	8000	0.25	0.5	152.0	13

NOTE: Standard Zener Voltage Tolerance  $\pm 5\%$

Fig. 1  
Changes in the power dissipation due to the ambient temperature.

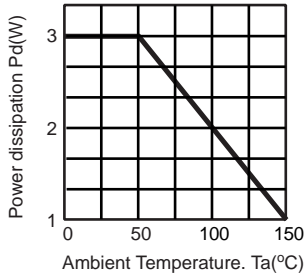


Fig. 2  
Vz=3.9 Thru 10 Volts

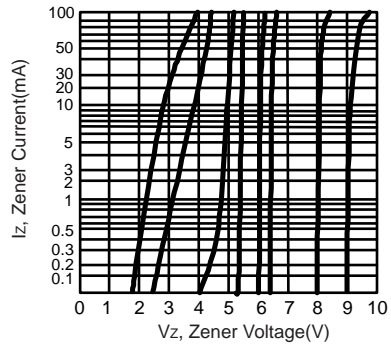


Fig. 3  
Vz=12 Thru 82 Volts

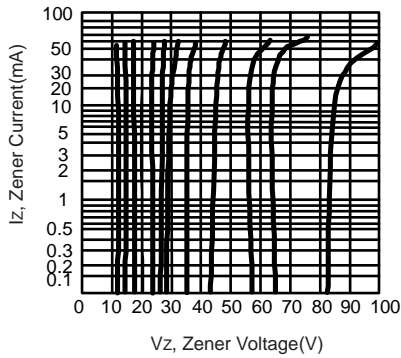
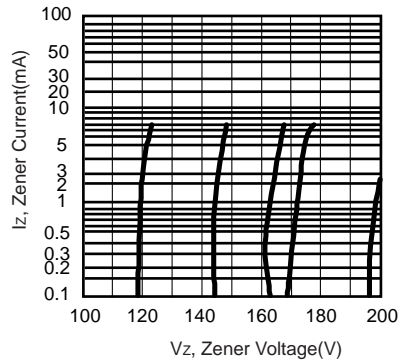


Fig. 4  
Vz=100 Thru 200 Volts



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