



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**1EZ6.2  
THRU  
1EZ300**

**TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED JUNCTION ZENER DIODES**  
**VOLTAGE RANGE - 6.2 to 300 Volts** **POWER - 1.0 Watt**

**FEATURES**

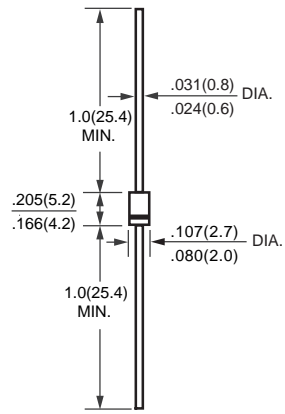
- \* Voltage Range: 6.2V to 300V
- \* Low leakage
- \* Low inductance
- \* High peak reverse power dissipation
- \* Glass passivated junction
- \* Build-in strain relief

**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: 0.33 gram



DO-41



**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
Maximum Power Dissipation @TL=50°C (Note 1)	P <sub>tot</sub>	1.0	W
Peak pulse current with a 10/1000µs waveform	V <sub>F</sub>	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note 2)	R <sub>θJA</sub>	170	°C/W
Junction Temperature Range	T <sub>J</sub>	-55 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	°C

- NOTES : 1. TL=Lead temperature at 3/8" (9.5mm) from body.  
 2. Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig. 1 - POWER TEMPERATURE DERATING CURVE

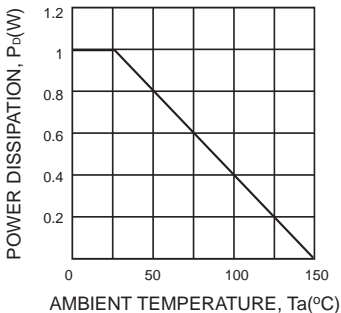


Fig. 2 - TYPICAL THERMAL RESISTANCE VERSUS LEAD LENGTH

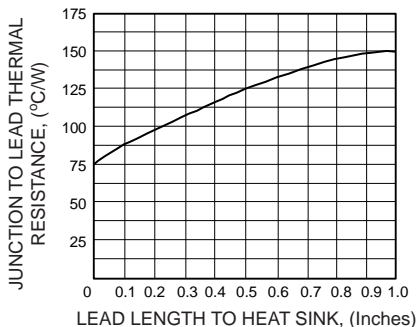
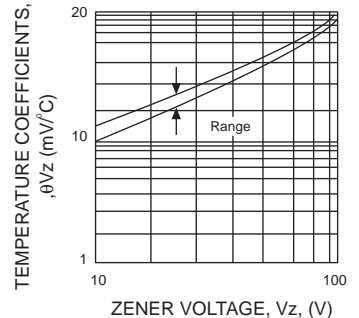


Fig. 3 - TEMPERATURE COEFFICIENTS v.s. ZENER VOLTAGE

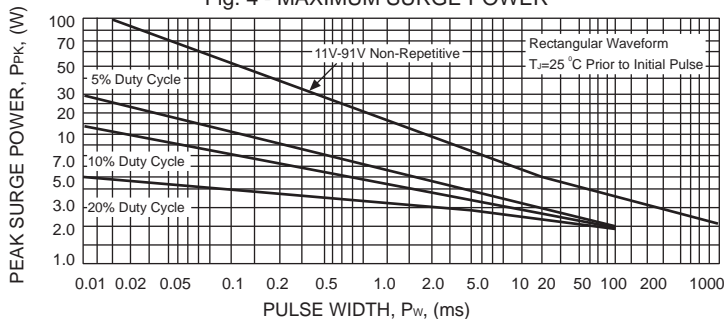


# RATING AND CHARACTERISTIC CURVES (1EZ6.2 THRU 1EZ300)

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	
1EZ6.2	6.2	41.0	2.0	700	1.00	10.0	3.0	146.0
1EZ6.8	6.8	37.0	3.5	700	1.00	5.0	4.0	133.0
1EZ7.5	7.5	34.0	4.0	700	0.50	5.0	5.0	121.0
1EZ8.2	8.2	31.0	4.5	700	0.50	5.0	6.0	110.0
1EZ9.1	9.1	28.0	5.0	700	0.50	0.5	7.0	100.0
1EZ10	10.0	25.0	7.0	700	0.25	0.5	7.6	91.0
1EZ11	11.0	23.0	8.0	700	0.25	0.1	8.4	83.0
1EZ12	12.0	21.0	9.0	700	0.25	0.1	9.1	76.0
1EZ13	13.0	19.0	10	700	0.25	0.1	9.9	69.0
1EZ15	15.0	17.0	14	700	0.25	0.1	11.4	61.0
1EZ16	16.0	15.5	16	700	0.25	0.1	12.2	57.0
1EZ18	18.0	14.0	20	750	0.25	0.1	13.7	50.0
1EZ20	20.0	12.5	22	750	0.25	0.1	15.2	45.0
1EZ22	22.0	11.5	23	750	0.25	0.1	16.7	41.0
1EZ24	24.0	10.5	25	750	0.25	0.1	18.2	38.0
1EZ27	27.0	9.5	35	750	0.25	0.1	20.6	34.0
1EZ30	30.0	8.5	40	1000	0.25	0.1	22.8	30.0
1EZ33	33.0	7.5	45	1000	0.25	0.1	25.1	27.0
1EZ36	36.0	7.0	50	1000	0.25	0.1	27.4	25.0
1EZ39	39.0	6.5	60	1000	0.25	0.1	29.7	23.0
1EZ43	43.0	6.0	70	1500	0.25	0.1	32.7	22.0
1EZ47	47.0	5.5	80	1500	0.25	0.1	35.8	19.0
1EZ51	51.0	5.0	95	1500	0.25	0.1	38.8	18.0
1EZ56	56.0	4.5	110	2000	0.25	0.1	42.6	16.0
1EZ62	62.0	4.0	125	2000	0.25	0.1	47.1	14.0
1EZ68	68.0	3.7	150	2000	0.25	0.1	51.7	13.0
1EZ75	75.0	3.3	175	2000	0.25	0.1	56.0	12.0
1EZ82	82.0	3.0	200	3000	0.25	0.1	62.2	11.0
1EZ91	91.0	2.8	250	3000	0.25	0.1	69.2	10.0
1EZ100	100.0	2.5	350	3000	0.25	0.1	76.0	9.0
1EZ110	110.0	2.3	450	4000	0.25	0.1	83.6	8.6
1EZ120	120.0	2.0	550	4500	0.25	0.1	91.2	7.8
1EZ130	130.0	1.9	700	5000	0.25	0.1	98.8	7.0
1EZ150	150.0	1.7	1000	6000	0.25	0.1	114.0	6.4
1EZ160	160.0	1.6	1100	6500	0.25	0.1	121.6	5.8
1EZ180	180.0	1.4	1200	7000	0.25	0.1	136.8	5.2
1EZ200	200.0	1.2	1900	9990	0.25	0.1	152.0	4.7
1EZ220	220.0	1.0	1600	8000	0.25	0.1	167.2	4.0
1EZ240	240.0	0.9	1800	8500	0.25	0.1	182.4	3.8
1EZ250	250.0	0.9	2000	9000	0.25	0.1	190.0	3.6
1EZ270	270.0	0.8	2100	9000	0.25	0.1	205.0	3.3
1EZ300	300.0	0.8	2300	9500	0.25	0.1	228.0	3.0

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

Fig. 4 - MAXIMUM SURGE POWER



## Disclaimer

Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold *DC COMPONENTS* harmless against all damages.

*DC COMPONENTS* disclaims any and all liability arising out of the application or use of any product, including consequential or incidental damages. Statement regarding the suitability of products for certain types of applications are based on *DC COMPONENTS*'s knowledge of typical requirements that are often placed on *DC COMPONENTS* products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

*DC COMPONENTS* reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein, and disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify *DC COMPONENTS*'s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Unless otherwise in writing, *DC COMPONENTS* products are intended for use as general electronic components in standard applications ( eg: Consumer electronic, Computer equipment, Office equipment, etc.), and not recommended for use in a high specific application where a failure or malfunction of the device could result in human injury or death ( eg: Aerospace equipment, Submarine cables, Combustion equipment, Safety devices, Life support systems, etc.)

Customers using or selling *DC COMPONENTS* products not expressly indicated for use in such applications do so at their own risk. If customer intended to use *DC COMPONENTS* standard quality grade devices for applications not envisioned by *DC COMPONENTS*, please contact our sales representatives in advance.



*DC COMPONENTS CO., LTD.*

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Zener Diodes](#) category:*

*Click to view products by [DC Components](#) manufacturer:*

Other Similar products are found below :

[RKZ13B2KG#P1](#) [DL5234B](#) [1N4682](#) [1N4691](#) [1N4693](#) [1N4732A](#) [1N4733A-TR](#) [1N4736A](#) [1N4750A](#) [1N4759ARL](#) [1N5241B](#) [1N5365B](#)  
[1N5369B](#) [1N747A](#) [1N959B](#) [1N964B](#) [1N966B](#) [1N968B](#) [1N972B](#) [NTE5121A](#) [NTE5147A](#) [NTE5152A](#) [NTE5155A](#) [NTE5164A](#)  
[JANS1N4974US](#) [1N4692](#) [1N4700](#) [1N4702](#) [1N4704](#) [1N4711](#) [1N4714](#) [1N4737A](#) [1N4745ARL](#) [1N4752A](#) [1N4752ARL](#) [1N4760ARL](#)  
[1N5221B](#) [1N5236B](#) [1N5241BTR](#) [1N5242BTR](#) [1N5350B](#) [1N5352B](#) [1N961BRR1](#) [1N964BRL](#) [RKZ5.1BKU#P6](#) [3SMAJ5950B-TP](#)  
[3SMBJ5925B-TP](#) [TDZTR24](#) [441774C](#) [MMSZ5230BQ-13-F](#)