

# GDZ2.0~GDZ56

## AXIAL LEAD ZENER DIODES

**VOLTAGE** 2.0 to 56 Volt      **POWER** 500 mWatt

**DO-34**      Unit : inch(mm)

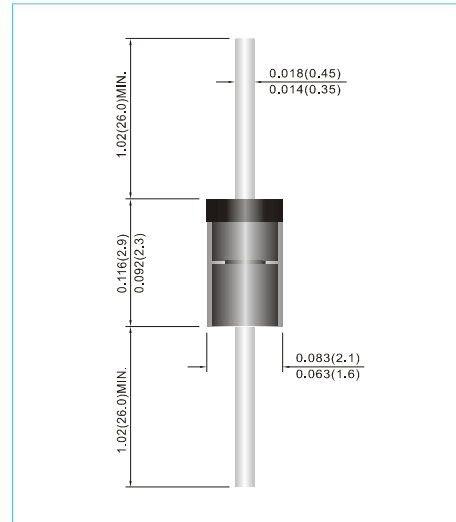
### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- Case: Molded Glass DO-34
- Terminals: Solderable per MIL-STD-750, Method 2026
- Packing information

B/P - 2K per Bulk box  
 T/R - 10K per 15" Reel  
 T/B - 5K per horiz. tape & Ammo box



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Power Dissipation on T <sub>A</sub> =25°C	P <sub>TOT</sub>	500	mW
Operating Junction Temperature Range	T <sub>J</sub>	175	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 175	°C
Valid provided that leads at a distance of 10mm from case are kept at ambient perature.			

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance	R <sub>θJA</sub>	-	-	0.3	°C/mW
Forward Voltage at I <sub>F</sub> =100mA	V <sub>F</sub>	-	-	1	V
Valid provided that leads at a distance of 10mm from case are kept at ambient perature.					

# GDZ2.0~GDZ56

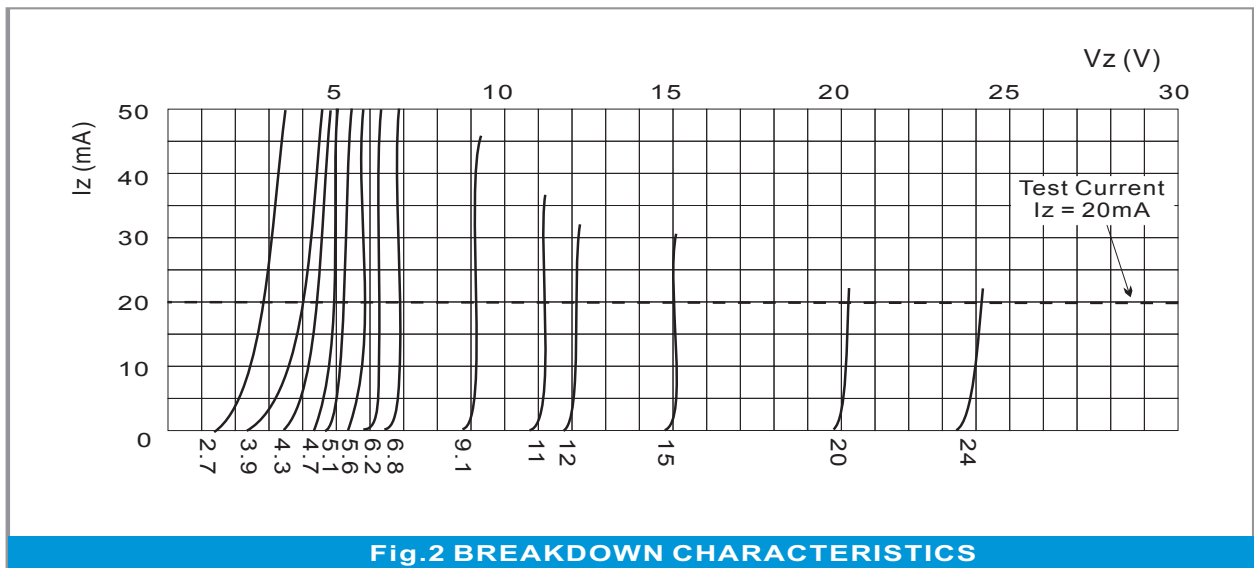
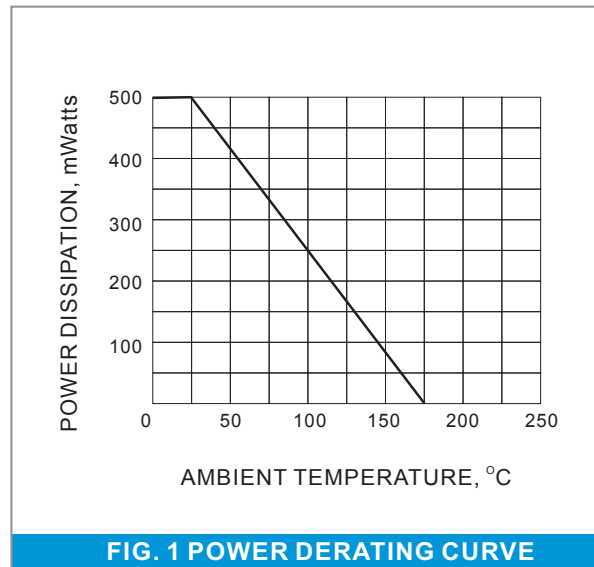
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes										
GDZ 2.0A	2	1.88	2.1	140	20	2000	1	120	0.5	2A0
GDZ 2.0B	2	2.02	2.2	140	20	2000	1	120	0.5	2B0
GDZ 2.2A	2.2	2.12	2.3	120	20	2000	1	120	0.7	2A2
GDZ 2.2B	2.2	2.22	2.41	120	20	2000	1	120	0.7	2B2
GDZ 2.4A	2.4	2.33	2.52	100	20	2000	1	120	1	2A4
GDZ 2.4B	2.4	2.43	2.63	100	20	2000	1	120	1	2B4
GDZ 2.7A	2.7	2.54	2.75	100	20	1000	1	120	1	2A7
GDZ 2.7B	2.7	2.69	2.91	100	20	1000	1	120	1	2B7
GDZ 3.0A	3	2.85	3.07	80	20	1000	1	50	1	3A0
GDZ 3.0B	3	3.01	3.22	80	20	1000	1	50	1	3B0
GDZ 3.3A	3.3	3.16	3.38	70	20	1000	1	20	1	3A3
GDZ 3.3B	3.3	3.32	3.53	70	20	1000	1	20	1	3B3
GDZ 3.6A	3.6	3.46	3.69	60	20	1000	1	10	1	3A6
GDZ 3.6B	3.6	3.6	3.84	60	20	1000	1	10	1	3B6
GDZ 3.9A	3.9	3.74	4.01	50	20	1000	1	5	1	3A9
GDZ 3.9B	3.9	3.89	4.16	50	20	1000	1	5	1	3B9
GDZ 4.3A	4.3	4.04	4.29	40	20	1000	1	5	1	4A3
GDZ 4.3B	4.3	4.17	4.43	40	20	1000	1	5	1	4B3
GDZ 4.3C	4.3	4.3	4.57	40	20	1000	1	5	1	4C3
GDZ 4.7A	4.7	4.44	4.68	25	20	900	1	5	1	4A7
GDZ 4.7B	4.7	4.55	4.8	25	20	900	1	5	1	4B7
GDZ 4.7C	4.7	4.68	4.93	25	20	900	1	5	1	4C7
GDZ 5.1A	5.1	4.81	5.07	20	20	800	1	5	1.5	5A1
GDZ 5.1B	5.1	4.94	5.2	20	20	800	1	5	1.5	5B1
GDZ 5.1C	5.1	5.09	5.37	20	20	800	1	5	1.5	5C1
GDZ 5.6A	5.6	5.28	5.55	13	20	500	1	5	2.5	5A6
GDZ 5.6B	5.6	5.45	5.73	13	20	500	1	5	2.5	5B6
GDZ 5.6C	5.6	5.61	5.91	13	20	500	1	5	2.5	5C6
GDZ 6.2A	6.2	5.78	6.09	10	20	300	1	5	3	6A2
GDZ 6.2B	6.2	5.96	6.27	10	20	300	1	5	3	6B2
GDZ 6.2C	6.2	6.12	6.44	10	20	300	1	5	3	6C2
GDZ 6.8A	6.8	6.29	6.63	8	20	150	0.5	2	3.5	6A8
GDZ 6.8B	6.8	6.49	6.83	8	20	150	0.5	2	3.5	6B8
GDZ 6.8C	6.8	6.66	7.01	8	20	150	0.5	2	3.5	6C8
GDZ 7.5A	7.5	6.85	7.22	8	20	120	0.5	0.5	4	7A5
GDZ 7.5B	7.5	7.07	7.45	8	20	120	0.5	0.5	4	7B5
GDZ 7.5C	7.5	7.29	7.67	8	20	120	0.5	0.5	4	7C5
GDZ 8.2A	8.2	7.53	7.92	8	20	120	0.5	0.5	5	8A2
GDZ 8.2B	8.2	7.78	8.19	8	20	120	0.5	0.5	5	8B2
GDZ 8.2C	8.2	8.03	8.45	8	20	120	0.5	0.5	5	8C2
GDZ 9.1A	9.1	8.29	8.73	8	20	120	0.5	0.5	6	9A1
GDZ 9.1B	9.1	8.57	9.01	8	20	120	0.5	0.5	6	9B1
GDZ 9.1C	9.1	8.83	9.3	8	20	120	0.5	0.5	6	9C1
GDZ 10A	10	9.12	9.59	8	20	120	0.5	0.2	7	10A
GDZ 10B	10	9.41	9.9	8	20	120	0.5	0.2	7	10B
GDZ 10C	10	9.7	10.2	8	20	120	0.5	0.2	7	10C
GDZ 10D	10	9.94	10.44	8	20	120	0.5	0.2	7	10D
GDZ 11A	11	10.18	10.71	10	10	120	0.5	0.2	8	11A
GDZ 11B	11	10.5	11.05	10	10	120	0.5	0.2	8	11B
GDZ 11C	11	10.82	11.38	10	10	120	0.5	0.2	8	11C

# GDZ2.0~GDZ56

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	Vz @ IzT			ZzT @ IzT		Zzk @ Izk		IR @ VR		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes										
GDZ 12A	12	11.13	11.71	12	10	110	0.5	0.2	9	12A
GDZ 12B	12	11.44	12.03	12	10	110	0.5	0.2	9	12B
GDZ 12C	12	11.74	12.35	12	10	110	0.5	0.2	9	12C
GDZ 13A	13	12.11	12.75	14	10	110	0.5	0.2	10	13A
GDZ 13B	13	12.55	13.21	14	10	110	0.5	0.2	10	13B
GDZ 13C	13	12.99	13.66	14	10	110	0.5	0.2	10	13C
GDZ 15A	15	13.44	14.13	16	10	110	0.5	0.2	11	15A
GDZ 15B	15	13.89	14.62	16	10	110	0.5	0.2	11	15B
GDZ 15C	15	14.35	15.09	16	10	110	0.5	0.2	11	15C
GDZ 16A	16	14.8	15.57	18	10	150	0.5	0.2	12	16A
GDZ 16B	16	15.25	16.04	18	10	150	0.5	0.2	12	16B
GDZ 16C	16	15.69	16.51	18	10	150	0.5	0.2	12	16C
GDZ 18A	18	16.22	17.06	23	10	150	0.5	0.2	13	18A
GDZ 18B	18	16.82	17.7	23	10	150	0.5	0.2	13	18B
GDZ 18C	18	17.42	18.33	23	10	150	0.5	0.2	13	18C
GDZ 20A	20	18.02	18.96	28	10	200	0.5	0.2	15	20A
GDZ 20B	20	18.63	19.59	28	10	200	0.5	0.2	15	20B
GDZ 20C	20	19.23	20.22	28	10	200	0.5	0.2	15	20C
GDZ 20D	20	19.72	20.72	28	10	200	0.5	0.2	15	20D
GDZ 22A	22	20.15	21.2	30	5	200	0.5	0.2	17	22A
GDZ 22B	22	20.64	21.71	30	5	200	0.5	0.2	17	22B
GDZ 22C	22	21.08	22.17	30	5	200	0.5	0.2	17	22C
GDZ 22D	22	21.52	22.63	30	5	200	0.5	0.2	17	22D
GDZ 24A	24	22.05	23.18	35	5	200	0.5	0.2	19	24A
GDZ 24B	24	22.61	23.77	35	5	200	0.5	0.2	19	24B
GDZ 24C	24	23.12	24.31	35	5	200	0.5	0.2	19	24C
GDZ 24D	24	23.63	24.85	35	5	200	0.5	0.2	19	24D
GDZ 27A	27	24.26	25.52	45	5	250	0.5	0.2	21	27A
GDZ 27B	27	24.97	26.26	45	5	250	0.5	0.2	21	27B
GDZ 27C	27	25.63	26.95	45	5	250	0.5	0.2	21	27C
GDZ 27D	27	26.29	27.64	45	5	250	0.5	0.2	21	27D
GDZ 30A	30	26.99	28.39	55	5	250	0.5	0.2	23	30A
GDZ 30B	30	27.7	29.13	55	5	250	0.5	0.2	23	30B
GDZ 30C	30	28.36	29.82	55	5	250	0.5	0.2	23	30C
GDZ 30D	30	29.02	30.51	55	5	250	0.5	0.2	23	30D
GDZ 33A	33	29.68	31.22	65	5	250	0.5	0.2	25	33A
GDZ 33B	33	30.32	31.88	65	5	250	0.5	0.2	25	33B
GDZ 33C	33	30.90	32.5	65	5	250	0.5	0.2	25	33C
GDZ 33D	33	31.49	33.11	65	5	250	0.5	0.2	25	33D
GDZ 36A	36	32.14	33.79	75	5	250	0.5	0.2	27	36A
GDZ 36B	36	32.79	34.49	75	5	250	0.5	0.2	27	36B
GDZ 36C	36	33.4	35.13	75	5	250	0.5	0.2	27	36C
GDZ 36D	36	34.01	35.77	75	5	250	0.5	0.2	27	36D
GDZ 39A	39	34.68	36.47	85	5	250	0.5	0.2	30	39A
GDZ 39B	39	35.36	37.19	85	5	250	0.5	0.2	30	39B
GDZ 39C	39	36	37.85	85	5	250	0.5	0.2	30	39C
GDZ 39D	39	36.63	38.52	85	5	250	0.5	0.2	30	39D
GDZ 41	39	37	41	90	5	-	-	0.2	30	41
GDZ 43	43	40	45	90	5	-	-	0.2	33	43
GDZ 47	47	44	49	90	5	-	-	0.2	36	47
GDZ 51	51	48	54	110	5	-	-	0.2	39	51
GDZ 56	56	53	60	110	5	-	-	0.2	43	56

# GDZ2.0~GDZ56

## RATING AND CHARACTERISTIC CURVES



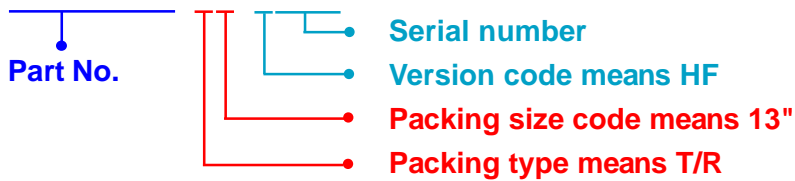
# GDZ2.0~GDZ56

## Part No\_packing code\_Version

GDZ2.0A\_AX\_10001  
 GDZ2.0A\_AY\_10001  
 GDZ2.0A\_BO\_10001  
 GDZ2.0A\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

## Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Siyang Grande Electronics Co., Ltd..
- Siyang Grande Electronics Co., Ltd. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Siyang Grande Electronics Co., Ltd. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Siyang Grande Electronics Co., Ltd. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Siyang Grande Electronics Co., Ltd. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Siyang Grande Electronics Co., Ltd. for any damages resulting from such improper use or sale.
- Since Grande uses lot number as the tracking base, please provide the lot number for tracking when complaining.