

# GDZJ2.0~GDZJ56

## AXIAL LEAD ZENER DIODES

**VOLTAGE** 2 to 56 Volt

**POWER** 500 mWatt

**DO-34**

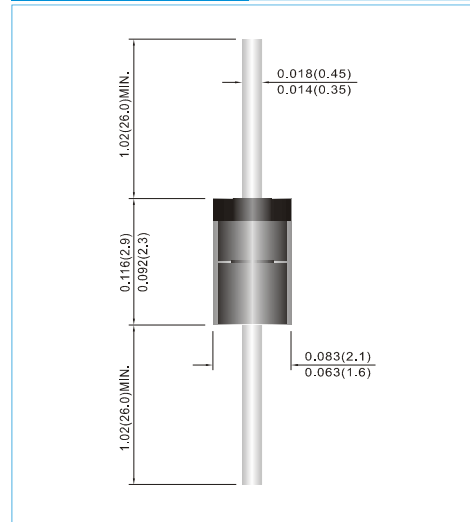
Unit : inch(mm)

### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0

### MECHANICAL DATA

- Case: Molded Glass DO-34
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0033 ounces, 0.094 grams
- Ordering information: Suffix : " -34 " to order DO-34 Package
- Packing information
  - B - 2K per Bulk box
  - T/R - 10K per 15" plastic Reel
  - T/B - 5K per horiz. tape & Ammo box



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation on $T_A=25^\circ\text{C}$	$P_{TOT}$	500	mW
Operating Junction Temperature Range	$T_J$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to + 175	$^\circ\text{C}$
Valid provided that leads at a distance of 10mm from case are kept at ambient perature.			

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance	$R_{\theta JA}$	-	-	0.3	$^\circ\text{C}/\text{mW}$
Forward Voltage at $I_F=100\text{mA}$	$V_F$	-	-	1	V
Valid provided that leads at a distance of 10mm from case are kept at ambient perature.					

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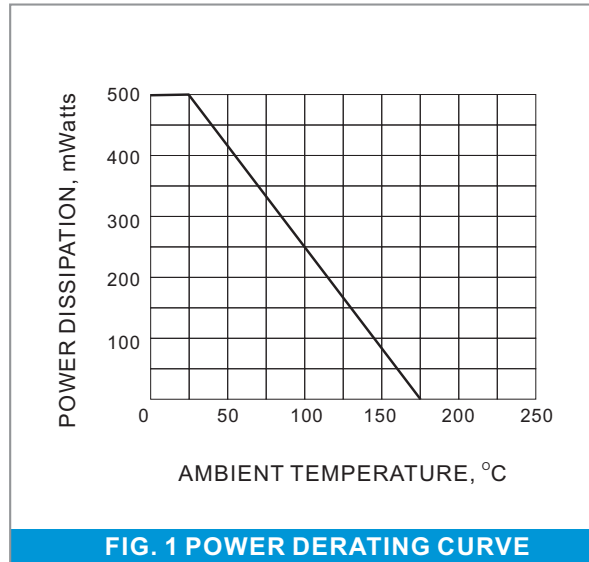
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes										
GDZJ 2.0A	2	1.88	2.1	100	5	1000	0.5	120	0.5	Z2A0
GDZJ 2.0B	2	2.02	2.2	100	5	1000	0.5	120	0.5	Z2B0
GDZJ 2.2A	2.2	2.12	2.3	100	5	1000	0.5	120	0.7	Z2A2
GDZJ 2.2B	2.2	2.22	2.41	100	5	1000	0.5	120	0.7	Z2B2
GDZJ 2.4A	2.4	2.33	2.52	100	5	1000	0.5	120	1	Z2A4
GDZJ 2.4B	2.4	2.43	2.63	100	5	1000	0.5	120	1	Z2B4
GDZJ 2.7A	2.7	2.54	2.75	110	5	1000	0.5	120	1	Z2A7
GDZJ 2.7B	2.7	2.69	2.91	110	5	1000	0.5	120	1	Z2B7
GDZJ 3.0A	3.0	2.85	3.07	120	5	1000	0.5	50	1	Z3A0
GDZJ 3.0B	3.0	3.01	3.22	120	5	1000	0.5	50	1	Z3B0
GDZJ 3.3A	3.3	3.16	3.38	120	5	1000	0.5	20	1	Z3A3
GDZJ 3.3B	3.3	3.32	3.53	120	5	1000	0.5	20	1	Z3B3
GDZJ 3.6A	3.6	3.46	3.69	100	5	1000	1	10	1	Z3A6
GDZJ 3.6B	3.6	3.6	3.84	100	5	1000	1	10	1	Z3B6
GDZJ 3.9A	3.9	3.74	4.01	100	5	1000	1	5	1	Z3A9
GDZJ 3.9B	3.9	3.89	4.16	100	5	1000	1	5	1	Z3B9
GDZJ 4.3A	4.3	4.04	4.29	100	5	1000	1	5	1	Z4A3
GDZJ 4.3B	4.3	4.17	4.43	100	5	1000	1	5	1	Z4B3
GDZJ 4.3C	4.3	4.3	4.57	100	5	1000	1	5	1	Z4C3
GDZJ 4.7A	4.7	4.44	4.68	90	5	900	1	5	1	Z4A7
GDZJ 4.7B	4.7	4.55	4.8	90	5	900	1	5	1	Z4B7
GDZJ 4.7C	4.7	4.68	4.93	90	5	900	1	5	1	Z4C7
GDZJ 5.1A	5.1	4.81	5.07	80	5	800	1	5	1.5	Z5A1
GDZJ 5.1B	5.1	4.94	5.2	80	5	800	1	5	1.5	Z5B1
GDZJ 5.1C	5.1	5.09	5.37	80	5	800	1	5	1.5	Z5C1
GDZJ 5.6A	5.6	5.28	5.55	60	5	500	1	5	2.5	Z5A6
GDZJ 5.6B	5.6	5.45	5.73	60	5	500	1	5	2.5	Z5B6
GDZJ 5.6C	5.6	5.61	5.91	60	5	500	1	5	2.5	Z5C6
GDZJ 6.2A	6.2	5.78	6.09	60	5	300	1	5	3	Z6A2
GDZJ 6.2B	6.2	5.96	6.27	60	5	300	1	5	3	Z6B2
GDZJ 6.2C	6.2	6.12	6.44	60	5	300	1	5	3	Z6C2
GDZJ 6.8A	6.8	6.29	6.63	20	5	150	0.5	2	3.5	Z6A8
GDZJ 6.8B	6.8	6.49	6.83	20	5	150	0.5	2	3.5	Z6B8
GDZJ 6.8C	6.8	6.66	7.01	20	5	150	0.5	2	3.5	Z6C8
GDZJ 7.5A	7.5	6.85	7.22	20	5	120	0.5	0.5	4	Z7A5
GDZJ 7.5B	7.5	7.07	7.45	20	5	120	0.5	0.5	4	Z7B5
GDZJ 7.5C	7.5	7.29	7.67	20	5	120	0.5	0.5	4	Z7C5
GDZJ 8.2A	8.2	7.53	7.92	20	5	120	0.5	0.5	5	Z8A2
GDZJ 8.2B	8.2	7.78	8.19	20	5	120	0.5	0.5	5	Z8B2
GDZJ 8.2C	8.2	8.03	8.45	20	5	120	0.5	0.5	5	Z8C2
GDZJ 9.1A	9.1	8.29	8.73	25	5	120	0.5	0.5	6	Z9A1
GDZJ 9.1B	9.1	8.57	9.01	25	5	120	0.5	0.5	6	Z9B1
GDZJ 9.1C	9.1	8.83	9.3	25	5	120	0.5	0.5	6	Z9C1
GDZJ 10A	10	9.12	9.59	30	5	120	0.5	0.2	7	Z10A
GDZJ 10B	10	9.41	9.9	30	5	120	0.5	0.2	7	Z10B
GDZJ 10C	10	9.7	10.2	30	5	120	0.5	0.2	7	Z10C
GDZJ 10D	10	9.94	10.44	30	5	120	0.5	0.2	7	Z10D
GDZJ 11A	11	10.18	10.71	30	5	120	0.5	0.2	8	Z11A
GDZJ 11B	11	10.5	11.05	30	5	120	0.5	0.2	8	Z11B
GDZJ 11C	11	10.82	11.38	30	5	120	0.5	0.2	8	Z11C

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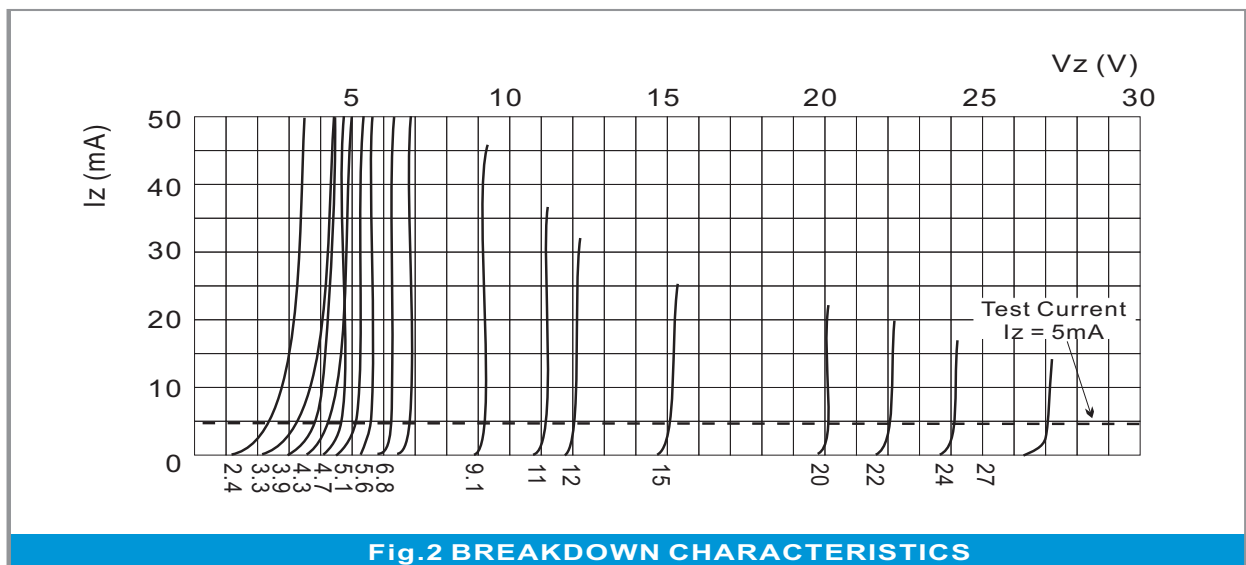
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	Vz @ IzT			ZzT @ IzT		Zzk @ Izk		IR @ VR		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes										
GDZJ 12A	12	11.13	11.71	30	5	110	0.5	0.2	9	Z12A
GDZJ 12B	12	11.44	12.03	30	5	110	0.5	0.2	9	Z12B
GDZJ 12C	12	11.74	12.35	30	5	110	0.5	0.2	9	Z12C
GDZJ 13A	13	12.11	12.75	35	5	110	0.5	0.2	10	Z13A
GDZJ 13B	13	12.55	13.21	35	5	110	0.5	0.2	10	Z13B
GDZJ 13C	13	12.99	13.66	35	5	110	0.5	0.2	10	Z13C
GDZJ 15A	15	13.44	14.13	40	5	110	0.5	0.2	11	Z15A
GDZJ 15B	15	13.89	14.62	40	5	110	0.5	0.2	11	Z15B
GDZJ 15C	15	14.35	15.09	40	5	110	0.5	0.2	11	Z15C
GDZJ 16A	16	14.8	15.57	40	5	150	0.5	0.2	12	Z16A
GDZJ 16B	16	15.25	16.04	40	5	150	0.5	0.2	12	Z16B
GDZJ 16C	16	15.69	16.51	40	5	150	0.5	0.2	12	Z16C
GDZJ 18A	18	16.22	17.06	45	5	150	0.5	0.2	13	Z18A
GDZJ 18B	18	16.82	17.7	45	5	150	0.5	0.2	13	Z18B
GDZJ 18C	18	17.42	18.33	45	5	150	0.5	0.2	13	Z18C
GDZJ 20A	20	18.02	18.96	55	5	200	0.5	0.2	15	Z20A
GDZJ 20B	20	18.63	19.59	55	5	200	0.5	0.2	15	Z20B
GDZJ 20C	20	19.23	20.22	55	5	200	0.5	0.2	15	Z20C
GDZJ 20D	20	19.72	20.72	55	5	200	0.5	0.2	15	Z20D
GDZJ 22A	22	20.15	21.2	30	5	200	0.5	0.2	17	Z22A
GDZJ 22B	22	20.64	21.71	30	5	200	0.5	0.2	17	Z22B
GDZJ 22C	22	21.08	22.17	30	5	200	0.5	0.2	17	Z22C
GDZJ 22D	22	21.52	22.63	30	5	200	0.5	0.2	17	Z22D
GDZJ 24A	24	22.05	23.18	35	5	200	0.5	0.2	19	Z24A
GDZJ 24B	24	22.61	23.77	35	5	200	0.5	0.2	19	Z24B
GDZJ 24C	24	23.12	24.31	35	5	200	0.5	0.2	19	Z24C
GDZJ 24D	24	23.63	24.85	35	5	200	0.5	0.2	19	Z24D
GDZJ 27A	27	24.26	25.52	45	5	250	0.5	0.2	21	Z27A
GDZJ 27B	27	24.97	26.26	45	5	250	0.5	0.2	21	Z27B
GDZJ 27C	27	25.63	26.95	45	5	250	0.5	0.2	21	Z27C
GDZJ 27D	27	26.29	27.64	45	5	250	0.5	0.2	21	Z27D
GDZJ 30A	30	26.99	28.39	55	5	250	0.5	0.2	23	Z30A
GDZJ 30B	30	27.7	29.13	55	5	250	0.5	0.2	23	Z30B
GDZJ 30C	30	28.36	29.82	55	5	250	0.5	0.2	23	Z30C
GDZJ 30D	30	29.02	30.51	55	5	250	0.5	0.2	23	Z30D
GDZJ 33A	33	29.68	31.22	65	5	250	0.5	0.2	25	Z33A
GDZJ 33B	33	30.32	31.88	65	5	250	0.5	0.2	25	Z33B
GDZJ 33C	33	30.90	32.5	65	5	250	0.5	0.2	25	Z33C
GDZJ 33D	33	31.49	33.11	65	5	250	0.5	0.2	25	Z33D
GDZJ 36A	36	32.14	33.79	75	5	250	0.5	0.2	27	Z36A
GDZJ 36B	36	32.79	34.49	75	5	250	0.5	0.2	27	Z36B
GDZJ 36C	36	33.4	35.13	75	5	250	0.5	0.2	27	Z36C
GDZJ 36D	36	34.01	35.77	75	5	250	0.5	0.2	27	Z36D
GDZJ 39A	39	34.68	36.47	85	5	250	0.5	0.2	30	Z39A
GDZJ 39B	39	35.36	37.19	85	5	250	0.5	0.2	30	Z39B
GDZJ 39C	39	36	37.85	85	5	250	0.5	0.2	30	Z39C
GDZJ 39D	39	36.63	38.52	85	5	250	0.5	0.2	30	Z39D
GDZJ 43	43	40	45	90	5	-	-	0.2	33	Z43
GDZJ 47	47	44	49	90	5	-	-	0.2	36	Z47
GDZJ 51	51	48	54	110	5	-	-	0.2	39	Z51
GDZJ 56	56	53	60	110	5	-	-	0.2	43	Z56

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## RATING AND CHARACTERISTIC CURVES



**FIG. 1 POWER DERATING CURVE**



**Fig.2 BREAKDOWN CHARACTERISTICS**

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### Part No\_packing code\_Version

GDZJ2.0A\_AX\_10001

GDZJ2.0A\_AY\_10001

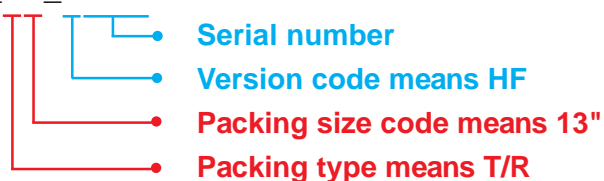
GDZJ2.0A\_B0\_10001

GDZJ2.0A\_R2\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.



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			

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