

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

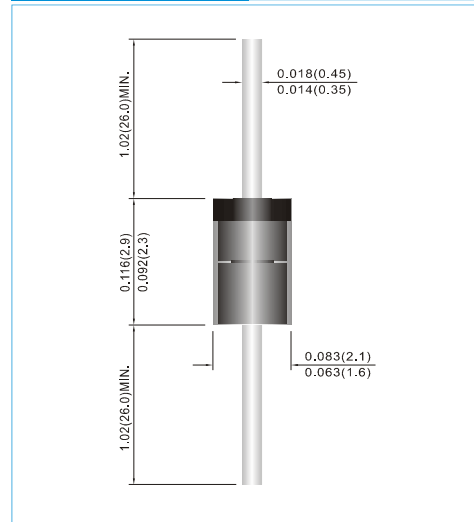
MECHANICAL DATA

- 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 _Z @ I _{ZT} | | | Z _{ZT} @ I _{ZT} | | Z _{ZK} @ I _{ZK} | | I _R @ V _R | | |
| | 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

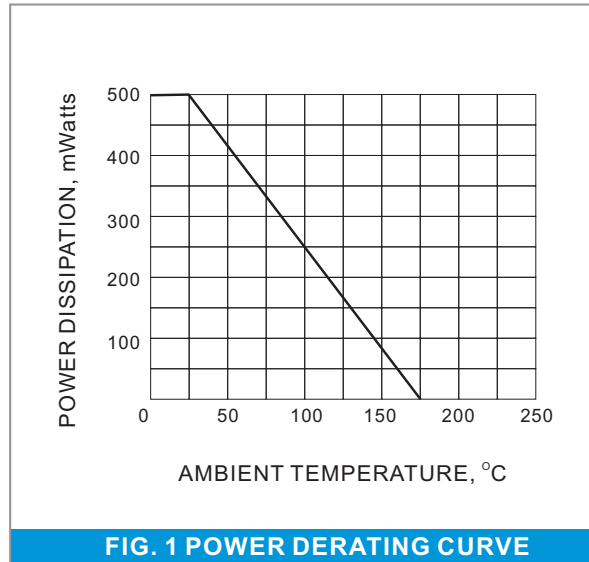


FIG. 1 POWER DERATING CURVE

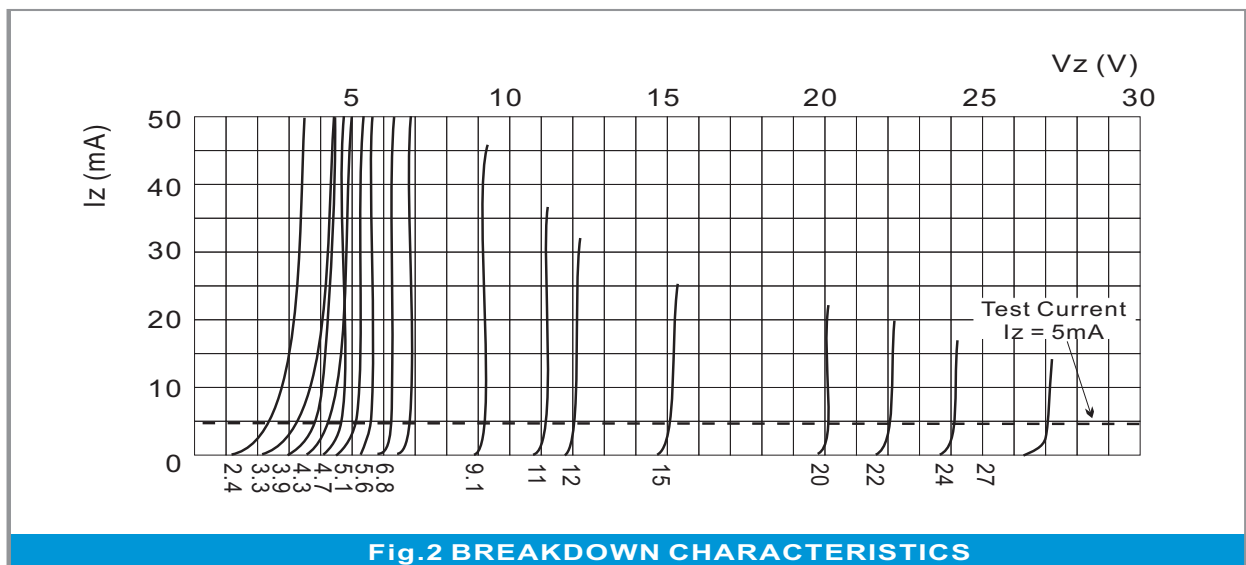


Fig.2 BREAKDOWN CHARACTERISTICS

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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



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th 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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