



1N5338B SERIES

SILICON ZENER DIODES

| | | | |
|----------------|-----------------------|---------------|---------------|
| VOLTAGE | 5.1 to 51 Volt | DCK 9F | 5 Watt |
|----------------|-----------------------|---------------|---------------|

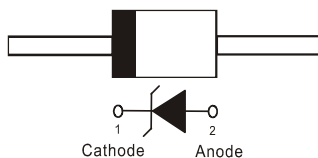
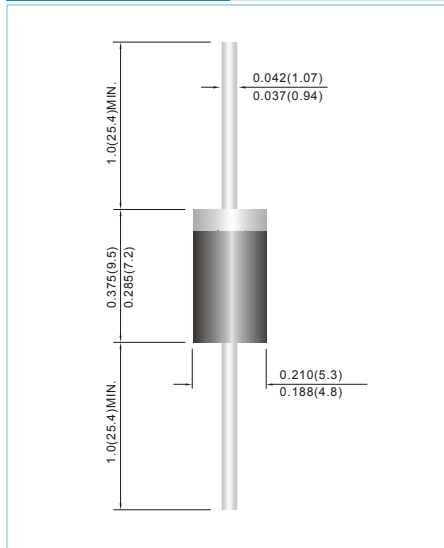
DO-201AE Unit : inch(mm)

FEATURES

- Low inductance
- Typical I_D less than 1 μ A above 13V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Lead free in compliance with EU RoHS 2.0

MECHANICAL DATA

- Case: JEDEC DO-201AE molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0395 ounce, 1.122 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | Value | Units |
|--|----------------|-------------|------------------|
| DC Power Dissipation on $T_c = 75^\circ\text{C}$, Measure at Zero Lead Length Derate above 75°C (NOTE 1) | P_D | 5 | Watts |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | $^\circ\text{C}$ |

NOTE :

1. Mounted on 8mm² copper pads to each terminal.



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| Part Number | Nominal Zener Voltage | | | Maximum Zener Impedance | | | | Maximum Leakage Current | |
|-------------|----------------------------------|--------|--------|-----------------------------------|-----|-----------------------------------|----|-------------------------|----------------|
| | 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 |
| 1N5338B | 5.1 | 4.85 | 5.36 | 2 | 240 | 400 | 1 | 10 | 1 |
| 1N5339B | 5.6 | 5.32 | 5.88 | 1 | 220 | 400 | 1 | 10 | 2 |
| 1N5340B | 6 | 5.7 | 6.30 | 1 | 200 | 300 | 1 | 10 | 3 |
| 1N5341B | 6.2 | 5.89 | 6.51 | 1 | 200 | 200 | 1 | 10 | 3 |
| 1N5342B | 6.8 | 6.46 | 7.14 | 1 | 175 | 200 | 1 | 10 | 5.2 |
| 1N5343B | 7.5 | 7.13 | 7.88 | 2 | 175 | 200 | 1 | 10 | 5.7 |
| 1N5344B | 8.2 | 7.79 | 8.61 | 2 | 150 | 200 | 1 | 10 | 6.2 |
| 1N5345B | 8.7 | 8.27 | 9.14 | 2 | 150 | 200 | 1 | 10 | 6.6 |
| 1N5346B | 9.1 | 8.65 | 9.56 | 2 | 150 | 150 | 1 | 7.5 | 6.9 |
| 1N5347B | 10 | 9.5 | 10.5 | 2 | 125 | 125 | 1 | 5 | 7.6 |
| 1N5348B | 11 | 10.45 | 11.55 | 3 | 125 | 125 | 1 | 5 | 8.4 |
| 1N5349B | 12 | 11.4 | 12.6 | 3 | 100 | 125 | 1 | 2 | 9.1 |
| 1N5350B | 13 | 12.35 | 13.65 | 3 | 100 | 100 | 1 | 1 | 9.9 |
| 1N5351B | 14 | 13.3 | 14.7 | 3 | 100 | 75 | 1 | 1 | 10.6 |
| 1N5352B | 15 | 14.25 | 15.75 | 3 | 75 | 75 | 1 | 1 | 11.5 |
| 1N5353B | 16 | 15.2 | 16.8 | 3 | 75 | 75 | 1 | 1 | 12.2 |
| 1N5354B | 17 | 16.15 | 17.85 | 3 | 70 | 75 | 1 | 0.5 | 12.9 |
| 1N5355B | 18 | 17.1 | 18.9 | 3 | 65 | 75 | 1 | 0.5 | 13.7 |
| 1N5356B | 19 | 18.05 | 19.95 | 3 | 65 | 75 | 1 | 0.5 | 14.4 |
| 1N5357B | 20 | 19 | 21 | 3 | 65 | 75 | 1 | 0.5 | 15.2 |
| 1N5358B | 22 | 20.9 | 23.1 | 4 | 50 | 75 | 1 | 0.5 | 16.7 |
| 1N5359B | 24 | 22.8 | 25.2 | 4 | 50 | 100 | 1 | 0.5 | 18.2 |
| 1N5360B | 25 | 23.75 | 26.25 | 4 | 50 | 110 | 1 | 0.5 | 19 |
| 1N5361B | 27 | 25.65 | 28.35 | 5 | 50 | 120 | 1 | 0.5 | 20.6 |
| 1N5362B | 28 | 26.6 | 29.4 | 6 | 50 | 130 | 1 | 0.5 | 21.2 |
| 1N5363B | 30 | 28.5 | 31.5 | 8 | 40 | 140 | 1 | 0.5 | 22.8 |
| 1N5364B | 33 | 31.35 | 34.65 | 10 | 40 | 150 | 1 | 0.5 | 25.1 |
| 1N5365B | 36 | 34.2 | 37.8 | 11 | 30 | 160 | 1 | 0.5 | 27.4 |
| 1N5366B | 39 | 37.05 | 40.95 | 14 | 30 | 170 | 1 | 0.5 | 29.7 |
| 1N5367B | 43 | 40.85 | 45.15 | 20 | 30 | 190 | 1 | 0.5 | 32.7 |
| 1N5368B | 47 | 44.65 | 49.35 | 25 | 25 | 210 | 1 | 0.5 | 35.8 |
| 1N5369B | 51 | 48.45 | 53.55 | 27 | 25 | 230 | 1 | 0.5 | 38.8 |



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RATING AND CHARACTERISTIC CURVES

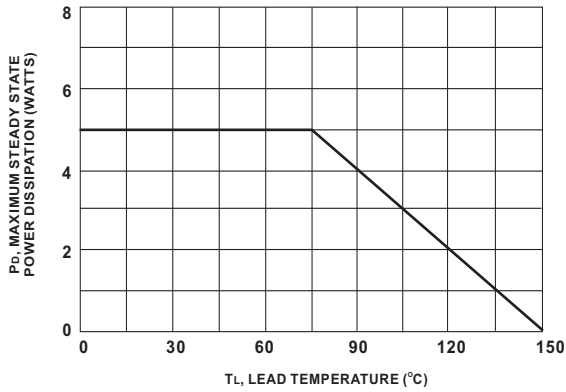


Fig.1 Power temperature Derating Curve

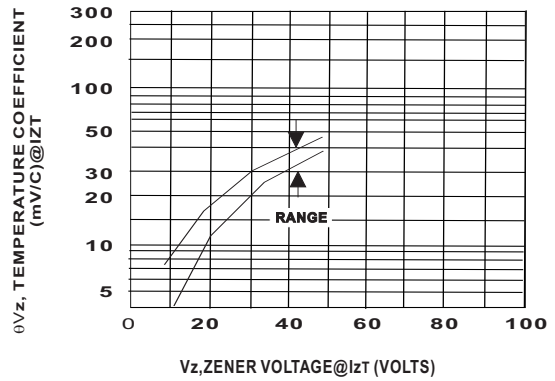


Fig.2 Temperature Coefficient-Range for Units 11 to 39 Volts

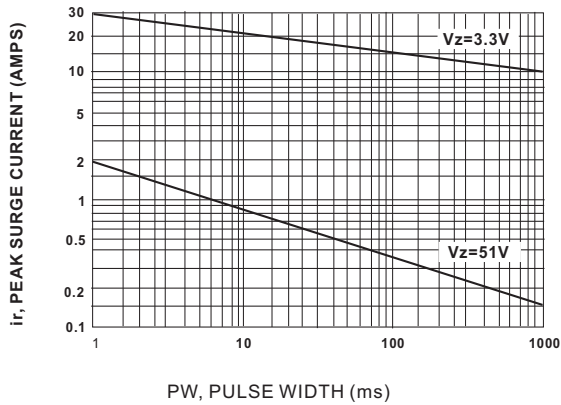


Fig.3 Peak Surge Current versus Pulse Width

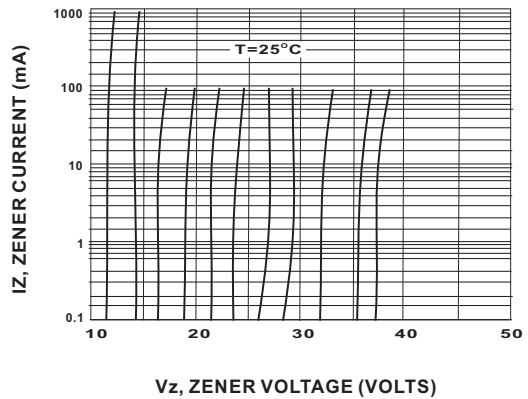


Fig.4 Zener Voltage versus Zener Current Vz=11 thru 39 Volts



1N5338B SERIES

Part No_packing code_Version

1N5338B_AY_00001
 1N5338B_AY_10001
 1N5338B_B0_00001
 1N5338B_B0_10001
 1N5338B_R2_00001
 1N5338B_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 | | | |