



稳压（齐纳）二极管 Zener Diodes

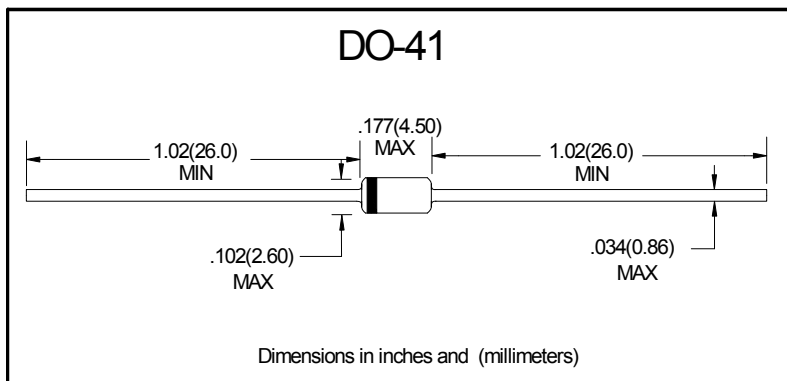
■特征 Features

- P_{tot} 1.0W
- V_z 3.3V-100V

■用途 Applications

- 稳定电压用 Stabilizing Voltage

■外形尺寸和印记 Outline Dimensions and Mark



■极限值（绝对最大额定值）

Limiting Values (Absolute Maximum Rating)

| 参数名称 Item | 符号 Symbol | 单位 Unit | 条件 Conditions | 最大值 Max |
|--------------------------------------|--------------|------------------|--------------------------------------|-------------------|
| 损耗功率 Power dissipation | P_{tot} | W | $L=4\text{mm}, T_L=25^\circ\text{C}$ | 1.0 ¹⁾ |
| 齐纳电流 Zener current | I_z | mA | | P_V / V_z |
| 最大结温 Maximum junction temperature | T_j | $^\circ\text{C}$ | | 175 |
| 存储温度范围 Storage temperature range | T_{stg} | $^\circ\text{C}$ | | -65 to +175 |

■电特性（ $T_a=25^\circ\text{C}$ 除非另有规定）

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| 参数名称 Item | 符号 Symbol | 单位 Unit | 条件 Conditions | 最大值 Max |
|-------------------------------|-----------------|---------------------------|--|------------|
| 典型热阻(1) Thermal resistance | $R_{\theta JA}$ | $^\circ\text{C}/\text{W}$ | 结到环境, $L=4\text{毫米}$, $T_L=\text{常温}$ junction to ambient air, $L=4\text{mm}, T_L=\text{constant}$ | 110 |
| 正向电压 Forward voltage | V_F | V | $I_F=200\text{mA}$ | 1.2 |

备注: Notes:

¹⁾ 距离管体4毫米引线处的温度设定为环境温度

Valid provided that leads at a distance of 4 mm from case are kept at ambient temperature.

■ 电性参数 (T_A=25℃ 除非另有规定)
Electrical Characteristics (T_A=25℃ unless otherwise noted)

| 产品型号 Part Number | 额定齐纳电压 Nominal Zener voltage ¹⁾ | 测试电流 Test current | 最大动态电阻 Maximum dynamic impedance | | | 最大反向漏电流 Maximum reverse leakage current | | 浪涌电流 Surge current ³⁾ | 最大调整电流 Maximum regulator current ²⁾ |
|------------------------|--|-------------------------|-------------------------------------|------------------------------------|-----------------|--|-----------------------------|---------------------------------------|--|
| | V _Z at I _{ZT} | I _{ZT} | Z _{ZT} at I _{ZT} | Z _{ZK} at I _{ZK} | I _{ZK} | I _R | Test voltage V _R | at T _A =25℃ I _R | I _{ZM} |
| | V | mA | Ω | Ω | mA | μA | V | mA | mA |
| 1N4728A | 3.3 | 76 | 10 | 400 | 1 | 100 | 1 | 1380 | 276 |
| 1N4729A | 3.6 | 69 | 10 | 400 | 1 | 100 | 1 | 1260 | 252 |
| 1N4730A | 3.9 | 64 | 9 | 400 | 1 | 50 | 1 | 1190 | 234 |
| 1N4731A | 4.3 | 58 | 9 | 400 | 1 | 10 | 1 | 1070 | 217 |
| 1N4732A | 4.7 | 53 | 8 | 500 | 1 | 10 | 1 | 970 | 193 |
| 1N4733A | 5.1 | 49 | 7 | 550 | 1 | 10 | 1 | 890 | 178 |
| 1N4734A | 5.6 | 45 | 5 | 600 | 1 | 10 | 2 | 810 | 162 |
| 1N4735A | 6.2 | 41 | 2 | 700 | 1 | 10 | 3 | 730 | 146 |
| 1N4736A | 6.8 | 37 | 3.5 | 700 | 1 | 10 | 4 | 660 | 133 |
| 1N4737A | 7.5 | 34 | 4 | 700 | 0.5 | 10 | 5 | 605 | 121 |
| 1N4738A | 8.2 | 31 | 4.5 | 700 | 0.5 | 10 | 6 | 550 | 110 |
| 1N4739A | 9.1 | 28 | 5 | 700 | 0.5 | 10 | 7 | 500 | 100 |
| 1N4740A | 10 | 25 | 7 | 700 | 0.25 | 10 | 7.6 | 454 | 91 |
| 1N4741A | 11 | 23 | 8 | 700 | 0.25 | 5 | 8.4 | 414 | 83 |
| 1N4742A | 12 | 21 | 9 | 700 | 0.25 | 5 | 9.1 | 380 | 76 |
| 1N4743A | 13 | 19 | 10 | 700 | 0.25 | 5 | 9.9 | 344 | 69 |
| 1N4744A | 15 | 17 | 14 | 700 | 0.25 | 5 | 11.4 | 304 | 61 |
| 1N4745A | 16 | 15.5 | 16 | 700 | 0.25 | 5 | 12.2 | 285 | 57 |
| 1N4746A | 18 | 14 | 20 | 750 | 0.25 | 5 | 13.7 | 250 | 50 |
| 1N4747A | 20 | 12.5 | 22 | 750 | 0.25 | 5 | 15.2 | 225 | 45 |
| 1N4748A | 22 | 11.5 | 23 | 750 | 0.25 | 5 | 16.7 | 205 | 41 |
| 1N4749A | 24 | 10.5 | 25 | 750 | 0.25 | 5 | 18.2 | 190 | 38 |
| 1N4750A | 27 | 9.5 | 35 | 750 | 0.25 | 5 | 20.6 | 170 | 34 |
| 1N4751A | 30 | 8.5 | 40 | 1000 | 0.25 | 5 | 22.8 | 150 | 30 |
| 1N4752A | 33 | 7.5 | 45 | 1000 | 0.25 | 5 | 25.1 | 135 | 27 |
| 1N4753A | 36 | 7 | 50 | 1000 | 0.25 | 5 | 27.4 | 125 | 25 |
| 1N4754A | 39 | 6.5 | 60 | 1000 | 0.25 | 5 | 29.7 | 115 | 23 |
| 1N4755A | 43 | 6 | 70 | 1500 | 0.25 | 5 | 32.7 | 110 | 22 |
| 1N4756A | 47 | 5.5 | 80 | 1500 | 0.25 | 5 | 35.8 | 95 | 19 |
| 1N4757A | 51 | 5 | 95 | 1500 | 0.25 | 5 | 38.8 | 90 | 18 |
| 1N4758A | 56 | 4.5 | 110 | 2000 | 0.25 | 5 | 42.6 | 80 | 16 |
| 1N4759A | 62 | 4 | 125 | 2000 | 0.25 | 5 | 47.1 | 70 | 14 |
| 1N4760A | 68 | 3.7 | 150 | 2000 | 0.25 | 5 | 51.7 | 65 | 13 |
| 1N4761A | 75 | 3.3 | 175 | 2000 | 0.25 | 5 | 56 | 60 | 12 |
| 1N4762A | 82 | 3.0 | 200 | 3000 | 0.25 | 5 | 62.2 | 55 | 11 |
| 1N4763A | 91 | 2.8 | 250 | 3000 | 0.25 | 5 | 69.2 | 50 | 10 |
| 1N4764A | 100 | 2.5 | 350 | 3000 | 0.25 | 5 | 76.0 | 45 | 9 |

备注: Notes:

¹⁾ 基于直流测试热平衡的同时保持引线的温度在30℃+1℃, 距离二极体本体距离为9.5毫米 (3/8")

Based on dc-measurement at thermal equilibrium while maintaining the lead temperature (TL) at 30℃+1℃, 9.5 mm (3/8") from the diode body

²⁾ 距离管体4毫米引线处的温度设定为环境温度

Valid provided that electrodes at a distance of 4 mm from case are kept at ambient temperature

³⁾ t_p = 10 ms

⁴⁾ 型号后面"A"标识电压±5%精度

A means standard V_Z tolerance is ±5%



1N47 SERIES

■特性曲线（典型） Characteristics(Typical)

图1：可接受功率损耗与环境温度关系

FIG1: Admissible Power Dissipation vs. Ambient Temperat

