



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

1N4728A
THRU
1N4754A

TECHNICAL SPECIFICATIONS OF GLASS SILICON ZENER DIODES

FEATURES

- * Voltage Range: 3.3V to 39V
- * Double slug type construction

MECHANICAL DATA

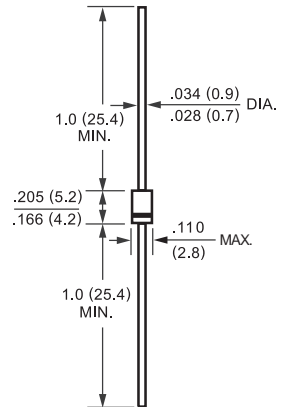
- * Case: Glass sealed case
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.35 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



DO-41(G)



Dimensions in millimeters

| | SYMBOL | VALUE | UNITS |
|---|------------------|------------------------------|-------------------------------|
| Zener Current see Table "Characterisitics" | | | |
| Power Dissipation at Tamb=25°C | P _{tot} | 1 ⁽¹⁾ | W |
| Junction Temperature | T _j | 175 | °C |
| Storage Temperature Range | T _{stg} | -55 to + 200 | °C |
| Thermal Resistance Junction to Ambient Air | R _{thA} | - - 170 ⁽¹⁾ | K/mW Typ. Min. Max. |
| Forward Voltage at I _F =200mA | V _F | - - 1.2 | Volts Typ. Min. Max. |

1)Valid Provided that leads are kept at ambient temperature at a distance of 10 mm from case.

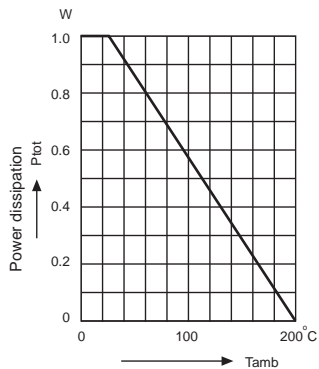
NOTE: Suffix "A" indicates Zener Voltage Tolerance ± 5%

RATING AND CHARACTERISTIC CURVES (1N4728A THRU 1N4754A)

| TYPE | Nominal Zener Voltage VZ@IZT | Test Current IZT | Maximum Zener Impedance | | IZK | Maximum Reverse Leakage Current | | Max. Surge Current IR | Maximum Regulator Current IZM |
|---------|---------------------------------|---------------------|-------------------------|---------|------|---------------------------------|-------|--------------------------|----------------------------------|
| | | | ZZT@IZT | ZZT@IZK | | IR | @VR | | |
| | | | Ohms | Ohms | | μA | Volts | | |
| | Volts | mA | | | mA | μA | Volts | mA | mA |
| 1N4728A | 3.3 | 76 | 10 | 400 | 1.0 | 100 | 1.0 | 1380 | 276 |
| 1N4729A | 3.6 | 69 | 10 | 400 | 1.0 | 100 | 1.0 | 1260 | 252 |
| 1N4730A | 3.9 | 64 | 9.0 | 400 | 1.0 | 50 | 1.0 | 1170 | 234 |
| 1N4731A | 4.3 | 58 | 9.0 | 400 | 1.0 | 10 | 1.0 | 1085 | 217 |
| 1N4732A | 4.7 | 53 | 8.0 | 500 | 1.0 | 10 | 1.0 | 965 | 193 |
| 1N4733A | 5.1 | 49 | 7.0 | 550 | 1.0 | 10 | 1.0 | 890 | 178 |
| 1N4734A | 5.6 | 45 | 5.0 | 600 | 1.0 | 10 | 2.0 | 810 | 162 |
| 1N4735A | 6.2 | 41 | 2.0 | 700 | 1.0 | 10 | 3.0 | 730 | 146 |
| 1N4736A | 6.8 | 37 | 3.5 | 700 | 1.0 | 10 | 4.0 | 660 | 133 |
| 1N4737A | 7.5 | 34 | 4.0 | 700 | 0.5 | 10 | 5.0 | 605 | 121 |
| 1N4738A | 8.2 | 31 | 4.5 | 700 | 0.5 | 10 | 6.0 | 550 | 110 |
| 1N4739A | 9.1 | 28 | 5.0 | 700 | 0.5 | 10 | 7.0 | 500 | 100 |
| 1N4740A | 10 | 25 | 7.0 | 700 | 0.25 | 10 | 7.6 | 454 | 91 |
| 1N4741A | 11 | 23 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 414 | 83 |
| 1N4742A | 12 | 21 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 380 | 76 |
| 1N4743A | 13 | 19 | 10 | 700 | 0.25 | 5.0 | 9.9 | 344 | 69 |
| 1N4744A | 15 | 17 | 14 | 700 | 0.25 | 5.0 | 11.4 | 304 | 61 |
| 1N4745A | 16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 285 | 57 |
| 1N4746A | 18 | 14 | 20 | 750 | 0.25 | 5.0 | 13.7 | 250 | 50 |
| 1N4747A | 20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 225 | 45 |
| 1N4748A | 22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 205 | 41 |
| 1N4749A | 24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 190 | 38 |
| 1N4750A | 27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 170 | 34 |
| 1N4751A | 30 | 8.5 | 40 | 1000 | 0.25 | 5.0 | 22.8 | 150 | 30 |
| 1N4752A | 33 | 7.5 | 45 | 1000 | 0.25 | 5.0 | 25.1 | 135 | 27 |
| 1N4753A | 36 | 7.0 | 50 | 1000 | 0.25 | 5.0 | 27.4 | 125 | 25 |
| 1N4754A | 39 | 6.5 | 60 | 1000 | 0.25 | 5.0 | 29.7 | 115 | 23 |

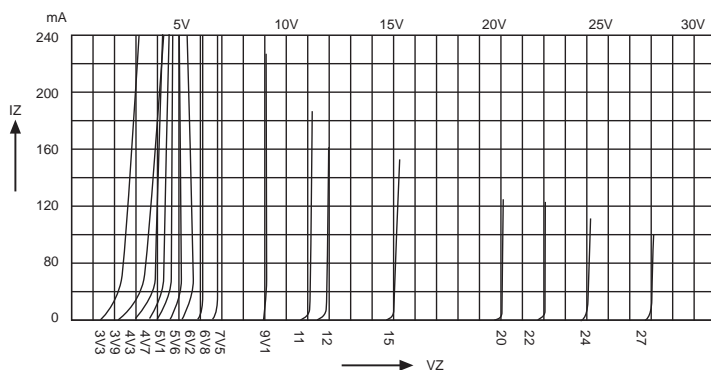
Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



Breakdown characteristics

1N47-SERIES



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