



ELECTRONICS INDUSTRY (USA) CO., LTD.



Certificate Number: Q10561



Certificate Number: E17276

103 MOO 4, LATKRABANG EXPORT PROCESSING ZONE, LATKRABANG, BANGKOK 10520, THAILAND
TEL. : (66 2) 326-0102, 739-4580 FAX. : (66 2) 326-0933 E-mail : eicfirst @ iname.com http. : // www.eicsemi.com

1N4728 - 1N4764

Z1110 - Z1200

V_Z : 3.3 - 200 Volts

P_D : 1 Watt

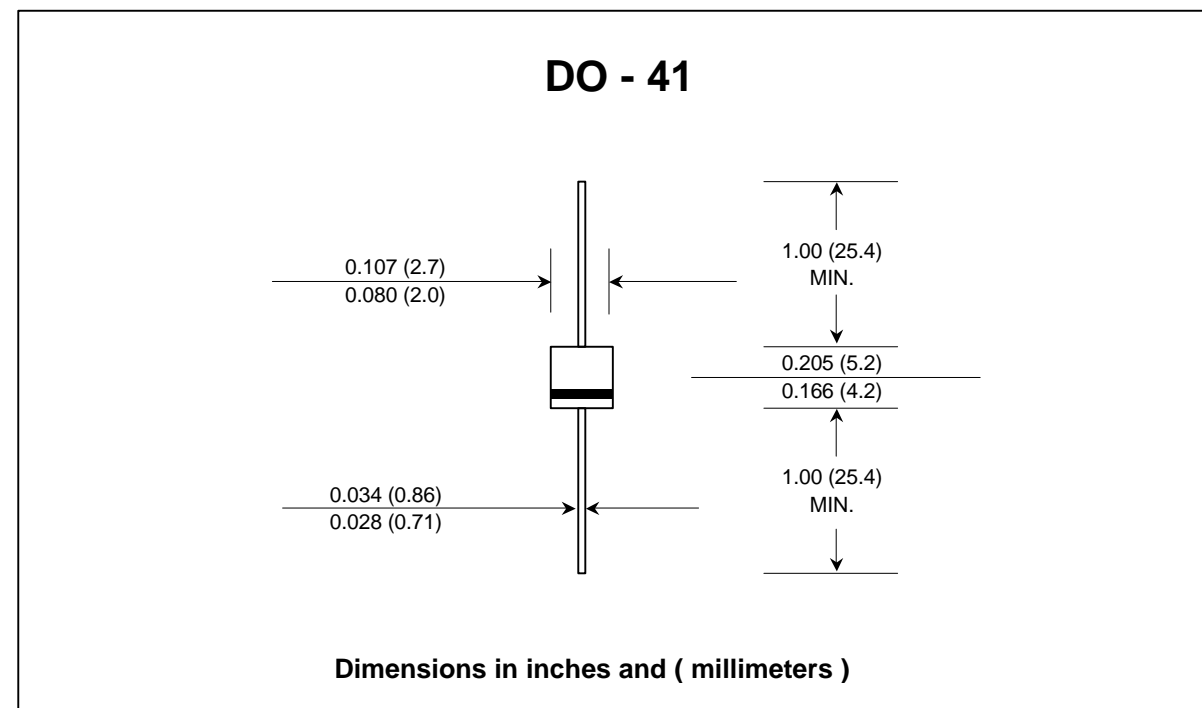
FEATURES :

- * Complete voltage range 3.3 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current

MECHANICAL DATA

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.339 gram

SILICON ZENER DIODES



MAXIMUM RATINGS

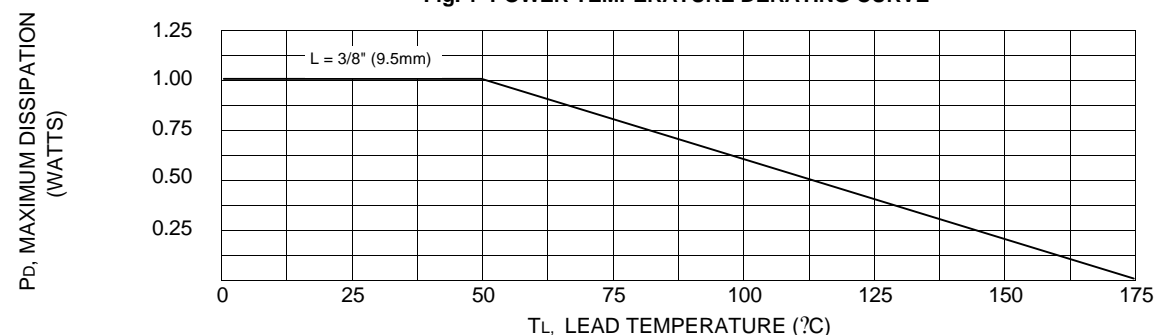
Rating at 25 °C ambient temperature unless otherwise specified

| Rating | Symbol | Value | Unit |
|--|----------------|---------------|-------|
| DC Power Dissipation at T _L = 50 °C (Note1) | P _D | 1.0 | Watt |
| Maximum Forward Voltage at I _F = 200 mA | V _F | 1.2 | Volts |
| Junction Temperature Range | T _J | - 55 to + 175 | °C |
| Storage Temperature Range | T _s | - 55 to + 175 | °C |

Note :

(1) T_L = Lead temperature at 3/8 " (9.5mm) from body

Fig. 1 POWER TEMPERATURE DERATING CURVE



UPDATE : JUNE 30, 2000



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ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

| TYPE | Nominal Zener Voltage | | Maximum Zener Impedance | | | Maximum Reverse Leakage Current | | Maximum DC Zener Current |
|--------|-----------------------|------|-------------------------|-----------|------|---------------------------------|-------|--------------------------|
| | Vz @ IzT | IzT | ZzT @ IzT | Zzk @ Izk | Izk | Ir @ Vr | | IzM |
| | (V) | (mA) | (Ω) | (Ω) | (mA) | (μA) | (V) | (mA) |
| 1N4728 | 3.3 | 76.0 | 10 | 400 | 1.0 | 100 | 1.0 | 276 |
| 1N4729 | 3.6 | 69.0 | 10 | 400 | 1.0 | 100 | 1.0 | 252 |
| 1N4730 | 3.9 | 64.0 | 9.0 | 400 | 1.0 | 50 | 1.0 | 234 |
| 1N4731 | 4.3 | 58.0 | 9.0 | 400 | 1.0 | 10 | 1.0 | 217 |
| 1N4732 | 4.7 | 53.0 | 8.0 | 500 | 1.0 | 10 | 1.0 | 193 |
| 1N4733 | 5.1 | 49.0 | 7.0 | 550 | 1.0 | 10 | 1.0 | 178 |
| 1N4734 | 5.6 | 45.0 | 5.0 | 600 | 1.0 | 10 | 2.0 | 162 |
| 1N4735 | 6.2 | 41.0 | 2.0 | 700 | 1.0 | 10 | 3.0 | 146 |
| 1N4736 | 6.8 | 37.0 | 3.5 | 700 | 1.0 | 20 | 4.0 | 133 |
| 1N4737 | 7.5 | 34.0 | 4.0 | 700 | 0.5 | 20 | 5.0 | 121 |
| 1N4738 | 8.2 | 31.0 | 4.5 | 700 | 0.5 | 20 | 6.0 | 110 |
| 1N4739 | 9.1 | 28.0 | 5.0 | 700 | 0.5 | 20 | 7.0 | 100 |
| 1N4740 | 10 | 25.0 | 7.0 | 700 | 0.25 | 20 | 7.6 | 91 |
| 1N4741 | 11 | 23.0 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 83 |
| 1N4742 | 12 | 21.0 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 76 |
| 1N4743 | 13 | 19.0 | 10 | 700 | 0.25 | 5.0 | 9.9 | 69 |
| 1N4744 | 15 | 17.0 | 14 | 700 | 0.25 | 5.0 | 11.4 | 61 |
| 1N4745 | 16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 57 |
| 1N4746 | 18 | 14.0 | 20 | 750 | 0.25 | 5.0 | 13.7 | 50 |
| 1N4747 | 20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 45 |
| 1N4748 | 22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 41 |
| 1N4749 | 24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 38 |
| 1N4750 | 27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 34 |
| 1N4751 | 30 | 8.5 | 40 | 1000 | 0.25 | 5.0 | 22.8 | 30 |
| 1N4752 | 33 | 7.5 | 45 | 1000 | 0.25 | 5.0 | 25.1 | 27 |
| 1N4753 | 36 | 7.0 | 50 | 1000 | 0.25 | 5.0 | 27.4 | 25 |
| 1N4754 | 39 | 6.5 | 60 | 1000 | 0.25 | 5.0 | 29.7 | 23 |
| 1N4755 | 43 | 6.0 | 70 | 1500 | 0.25 | 5.0 | 32.7 | 22 |
| 1N4756 | 47 | 5.5 | 80 | 1500 | 0.25 | 5.0 | 35.8 | 19 |
| 1N4757 | 51 | 5.0 | 95 | 1500 | 0.25 | 5.0 | 38.8 | 18 |
| 1N4758 | 56 | 4.5 | 110 | 2000 | 0.25 | 5.0 | 42.6 | 16 |
| 1N4759 | 62 | 4.0 | 125 | 2000 | 0.25 | 5.0 | 47.1 | 14 |
| 1N4760 | 68 | 3.7 | 150 | 2000 | 0.25 | 5.0 | 51.7 | 13 |
| 1N4761 | 75 | 3.3 | 175 | 2000 | 0.25 | 5.0 | 56.0 | 12 |
| 1N4762 | 82 | 3.0 | 200 | 3000 | 0.25 | 5.0 | 62.2 | 11 |
| 1N4763 | 91 | 2.8 | 250 | 3000 | 0.25 | 5.0 | 69.2 | 10 |
| 1N4764 | 100 | 2.5 | 350 | 3000 | 0.25 | 5.0 | 76.0 | 9.0 |
| Z1110 | 110 | 2.3 | 450 | 4000 | 0.25 | 5.0 | 83.6 | 8.6 |
| Z1120 | 120 | 2.0 | 550 | 4500 | 0.25 | 5.0 | 91.2 | 7.8 |
| Z1130 | 130 | 1.9 | 700 | 5000 | 0.25 | 5.0 | 98.8 | 7.0 |
| Z1150 | 150 | 1.7 | 1000 | 6000 | 0.25 | 5.0 | 114.0 | 6.4 |
| Z1160 | 160 | 1.6 | 1100 | 6500 | 0.25 | 5.0 | 121.6 | 5.8 |
| Z1180 | 180 | 1.4 | 1200 | 7000 | 0.25 | 5.0 | 136.8 | 5.2 |
| Z1200 | 200 | 1.2 | 1500 | 8000 | 0.25 | 5.0 | 152.0 | 4.7 |

Note :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of ± 10%.
A standard tolerance of ± 5% on individual units is also available and is indicated by suffixing "A" to the standard type number.