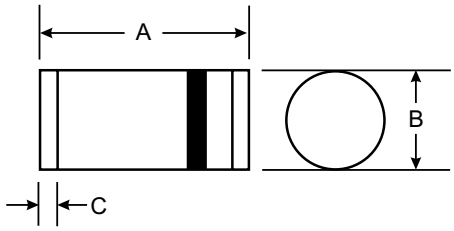
# GLL4728A - GLL4764A

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE RANGE: 3.3 - 100V**
**POWER: 1.0Watts**




### Features

- Complete voltage range 3.3 to 100 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

### Mechanical Data

- Case : DO-213AB /LL41,Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.25 g

RoHS COMPLIANT

| LL41/ DO-213AB | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 4.80 | 5.20 |
| **B** | 2.40 | 2.60 |
| **C** | 0.55 Nominal | |
| **All Dimensions in mm** | | |

### Maximum Ratings $T_A$ = 25°C 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 |
| Maximum Thermal Resistance Junction to Ambient Air (Note2) | $R_{\Theta JA}$ | 170 | K / W |
| Junction Temperature Range | $T_J$ | - 55 to + 175 | °C |
| Storage Temperature Range | $T_{STG}$ | - 55 to + 175 | °C |

**Notes :**

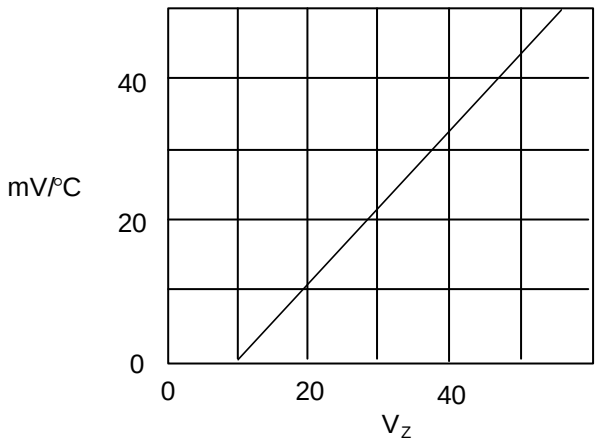
(1) $T_L$ = Lead temperature at 3/8 " (9.5mm) from body

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

## ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

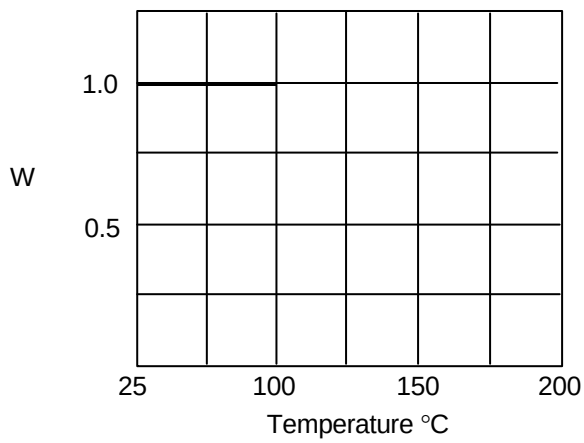
| Type | Nominal Zener Voltage | | Maximum Zener Impedance | | | Maximum Reverse Leakage Current | | Maximum DC Zener Current | Maximum Surge Current |
|---|---|---|---|---|---|---|---|---|---|
| | $V_Z$ @ $I_{ZT}$ | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $Z_{ZK}$ @ $I_{ZK}$ | $I_{ZK}$ | $I_R$ @ $V_R$ | | $I_{ZM}$ | $I_{RM}$ (2) |
| | (V) | (mA) | (Ω) | (Ω) | (mA) | (μA) | (V) | (mA) | (mApk) |
| **GLL4728A** | 3.3 | 76.0 | 10 | 400 | 1.0 | 100 | 1.0 | 276 | 1380 |
| **GLL4729A** | 3.6 | 69.0 | 10 | 400 | 1.0 | 100 | 1.0 | 252 | 1260 |
| **GLL4730A** | 3.9 | 64.0 | 9.0 | 400 | 1.0 | 50 | 1.0 | 234 | 1190 |
| **GLL4731A** | 4.3 | 58.0 | 9.0 | 400 | 1.0 | 10 | 1.0 | 217 | 1070 |
| **GLL4732A** | 4.7 | 53.0 | 8.0 | 500 | 1.0 | 10 | 1.0 | 193 | 970 |
| **GLL4733A** | 5.1 | 49.0 | 7.0 | 550 | 1.0 | 10 | 1.0 | 178 | 890 |
| **GLL4734A** | 5.6 | 45.0 | 5.0 | 600 | 1.0 | 10 | 2.0 | 162 | 810 |
| **GLL4735A** | 6.2 | 41.0 | 2.0 | 700 | 1.0 | 10 | 3.0 | 146 | 730 |
| **GLL4736A** | 6.8 | 37.0 | 3.5 | 700 | 1.0 | 10 | 4.0 | 133 | 660 |
| **GLL4737A** | 7.5 | 34.0 | 4.0 | 700 | 0.5 | 10 | 5.0 | 121 | 605 |
| **GLL4738A** | 8.2 | 31.0 | 4.5 | 700 | 0.5 | 10 | 6.0 | 110 | 550 |
| **GLL4739A** | 9.1 | 28.0 | 5.0 | 700 | 0.5 | 10 | 7.0 | 100 | 500 |
| **GLL4740A** | 10 | 25.0 | 7.0 | 700 | 0.25 | 10 | 7.6 | 91 | 454 |
| **GLL4741A** | 11 | 23.0 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 83 | 414 |
| **GLL4742A** | 12 | 21.0 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 76 | 380 |
| **GLL4743A** | 13 | 19.0 | 10 | 700 | 0.25 | 5.0 | 9.9 | 69 | 344 |
| **GLL4744A** | 15 | 17.0 | 14 | 700 | 0.25 | 5.0 | 11.4 | 61 | 305 |
| **GLL4745A** | 16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 57 | 285 |
| **GLL4746A** | 18 | 14.0 | 20 | 750 | 0.25 | 5.0 | 13.7 | 50 | 250 |
| **GLL4747A** | 20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 45 | 225 |
| **GLL4748A** | 22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 41 | 205 |
| **GLL4749A** | 24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 38 | 190 |
| **GLL4750A** | 27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 34 | 170 |
| **GLL4751A** | 30 | 8.5 | 40 | 1000 | 0.25 | 5.0 | 22.8 | 30 | 150 |
| **GLL4752A** | 33 | 7.5 | 45 | 1000 | 0.25 | 5.0 | 25.1 | 27 | 135 |
| **GLL4753A** | 36 | 7.0 | 50 | 1000 | 0.25 | 5.0 | 27.4 | 25 | 125 |
| **GLL4754A** | 39 | 6.5 | 60 | 1000 | 0.25 | 5.0 | 29.7 | 23 | 115 |
| **GLL4755A** | 43 | 6.0 | 70 | 1500 | 0.25 | 5.0 | 32.7 | 22 | 110 |
| **GLL4756A** | 47 | 5.5 | 80 | 1500 | 0.25 | 5.0 | 35.8 | 19 | 95 |
| **GLL4757A** | 51 | 5.0 | 95 | 1500 | 0.25 | 5.0 | 38.8 | 18 | 90 |
| **GLL4758A** | 56 | 4.5 | 110 | 2000 | 0.25 | 5.0 | 42.6 | 16 | 80 |
| **GLL4759A** | 62 | 4.0 | 125 | 2000 | 0.25 | 5.0 | 47.1 | 14 | 70 |
| **GLL4760A** | 68 | 3.7 | 150 | 2000 | 0.25 | 5.0 | 51.7 | 13 | 65 |
| **GLL4761A** | 75 | 3.3 | 175 | 2000 | 0.25 | 5.0 | 56.0 | 12 | 60 |
| **GLL4762A** | 82 | 3.0 | 200 | 3000 | 0.25 | 5.0 | 62.2 | 11 | 55 |
| **GLL4763A** | 91 | 2.8 | 250 | 3000 | 0.25 | 5.0 | 69.2 | 10 | 50 |
| **GLL4764A** | 100 | 2.5 | 350 | 3000 | 0.25 | 5.0 | 76.0 | 9.0 | 45 |

Figure 1 - Typical Temperature Coefficient




Typical Temperature Coefficient (mV/°C) – *versus* – Zener Voltage ($V_Z$)

Figure 2 - Derating Curve




Power Dissipation (W) - *Versus* - Temperature °C