NZL5V6AUA3

Product Preview

MicroLeadless[™] Dual Common Anode Zener for ESD Protection

Plastic Surface Mount Leadless Package

This dual monolithic silicon voltage suppressor is designed for applications requiring ESD protection capability. It is intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment, and other applications. Its dual junction common anode design protects four separate lines using only one package. These devices are ideal for situations where board space is at a premium.

Specification Features

- Low Leakage < 1 μA @ 3 Volts
- Breakdown Voltage: 5.3 5.9 Volts @ 1 mA
- Low Capacitance (40 pF typical between terminals)
- ESD Protection Meeting IEC61000-4-2 Level 4

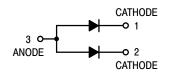
Mechanical Characteristics

- Void Free, Transfer-Molded, Thermosetting Plastic Case
- Corrosion Resistant Finish, Easily Solderable
- Small Package Size for High Density Applications



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1006 3 PAD CASE TBD STYLE 4

MARKING DIAGRAM



56 = Device Marking

ORDERING INFORMATION

| Device | Package | Shipping | |
|------------|-----------------------------|----------|--|
| NZL5V6AUA3 | 1006 3 Pad MicroLeadless | TBD | |

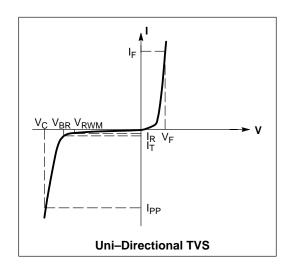
This document contains information on a product under development. ON Semiconductor reserves the right to change or discontinue this product without notice.

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted)

UNIDIRECTIONAL (Circuit tied to Pins 1 and 3 or 2 and 3)

| Symbol | Parameter | | | | |
|------------------|--|--|--|--|--|
| I _{PP} | Maximum Reverse Peak Pulse Current | | | | |
| V _C | Clamping Voltage @ I _{PP} | | | | |
| V _{RWM} | Working Peak Reverse Voltage | | | | |
| I _R | Maximum Reverse Leakage Current @ V _{RWM} | | | | |
| V _{BR} | Breakdown Voltage @ I _T | | | | |
| I _T | Test Current | | | | |
| ΘV _{BR} | Maximum Temperature Coefficient of V _{BR} | | | | |
| I _F | Forward Current | | | | |
| V _F | Forward Voltage @ I _F | | | | |
| Z _{ZT} | Maximum Zener Impedance @ I _{ZT} | | | | |
| I _{ZK} | Reverse Current | | | | |
| Z _{ZK} | Maximum Zener Impedance @ I _{ZK} | | | | |

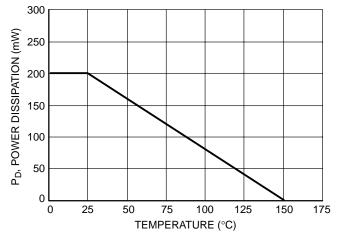


MAXIMUM RATINGS ($T_A = 25^{\circ}C$ unless otherwise noted)

| | Characteristic | Symbol | Value | Unit |
|--|--|---------------------------------|-------------|------|
| Steady State Power – 1 Diode | | P _D | >150 | mW |
| Maximum Junction Temperature | | T _{Jmax} | 150 | °C |
| Operating Junction and Storage Temperature Range | | T _J T _{stg} | -55 to +150 | °C |
| ESD Discharge | IEC61000–4–2, Air Discharge IEC61000–4–2, Contact Discharge | V _{PP} | ±15 ±8 | kV |
| Lead Solder Temperature (10 seconds duration) | | T _L | 260 | °C |

ELECTRICAL CHARACTERISTICS

| | Breakdown Voltage V _{BR} @ 1 mA (Volts) | | Leakage Current I _{RM} @ V _{RM} = 3.0 V | Typical Capacitance @ 0 V Bias @ 1.0 MHz | Max V _F @ I _F = 10 mA | |
|--------|---|-----|--|---|--|------|
| Device | Min | Nom | Max | (μΑ) | (pF) | (V) |
| NZL5V6 | 5.3 | 5.6 | 5.9 | 1.0 | 40 | 1.25 |





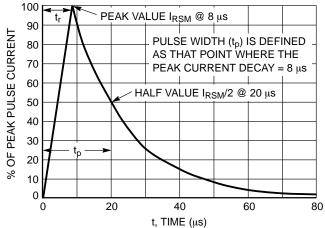


Figure 2. 8 X 20 µs Pulse Waveform

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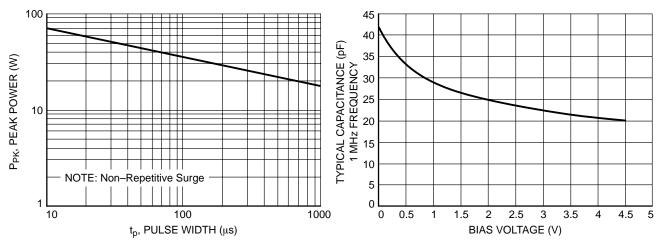


Figure 3. Pulse Rating Curve

Figure 4. Capacitance

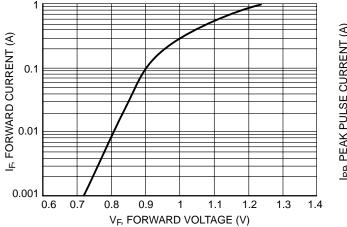


Figure 5. Forward Current versus Forward Voltage

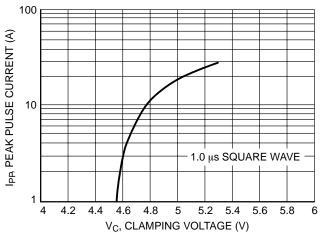


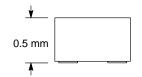
Figure 6. Clamping Voltage versus Peak Pulse Current (Reverse Direction)

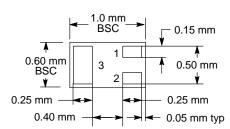
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PACKAGE DIMENSIONS

1006 MicroLeadless CASE TBD

ISSUE TBD





STYLE 4: PIN 1. CATHODE 2. CATHODE 3. ANODE

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