

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 μ A @ 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

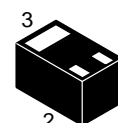
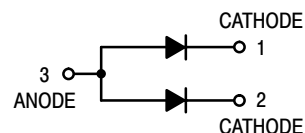
Mechanical Characteristics

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



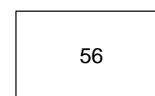
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1006 3 PAD
CASE TBD
STYLE 4

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.

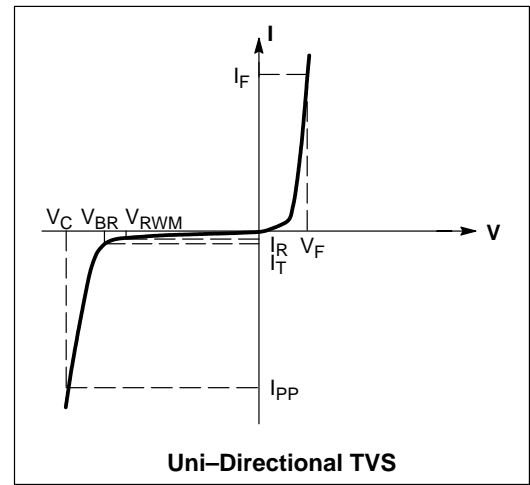
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ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	Value	Unit
Steady State Power – 1 Diode	P_D	>150	mW
Maximum Junction Temperature	T_{Jmax}	150	$^\circ\text{C}$
Operating Junction and Storage Temperature Range	$T_J T_{stg}$	-55 to +150	$^\circ\text{C}$
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	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Device	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
	Min	Nom	Max	(μA)	(pF)	(V)
NZL5V6	5.3	5.6	5.9	1.0	40	1.25

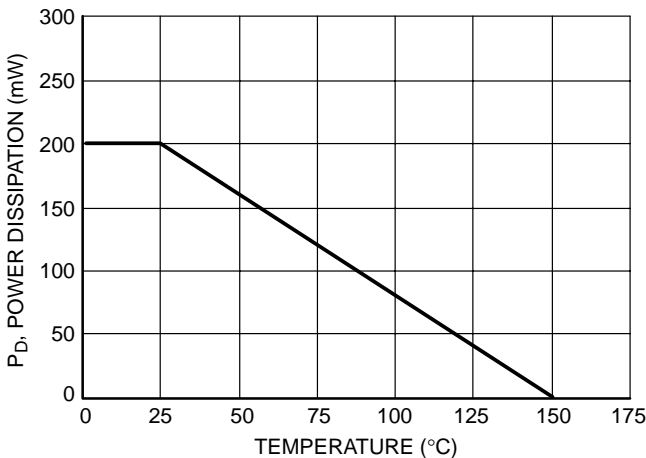


Figure 1. Steady State Power Derating Curve

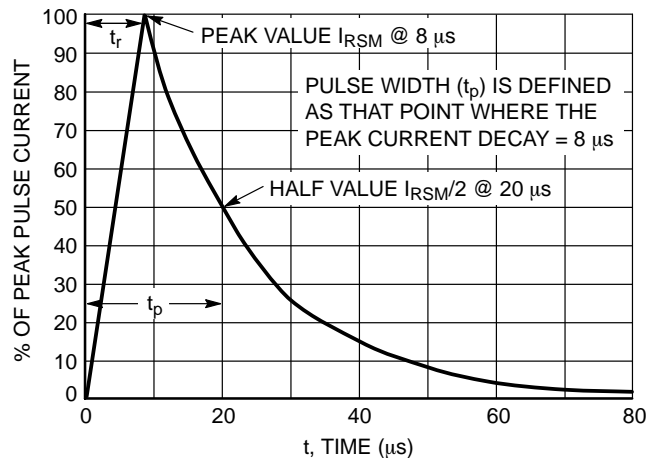


Figure 2. 8 x 20 μs Pulse Waveform

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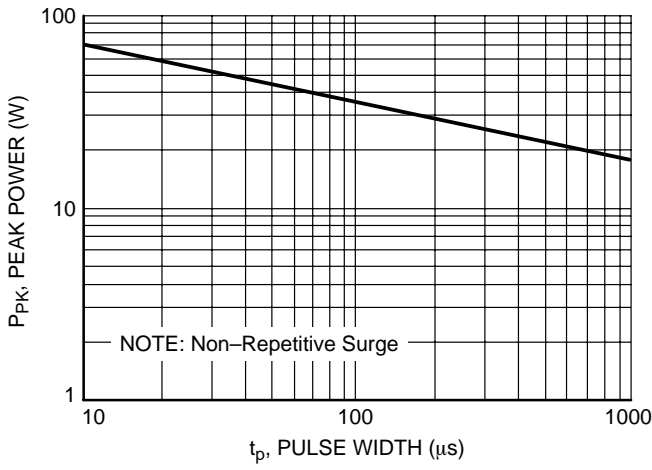


Figure 3. Pulse Rating Curve

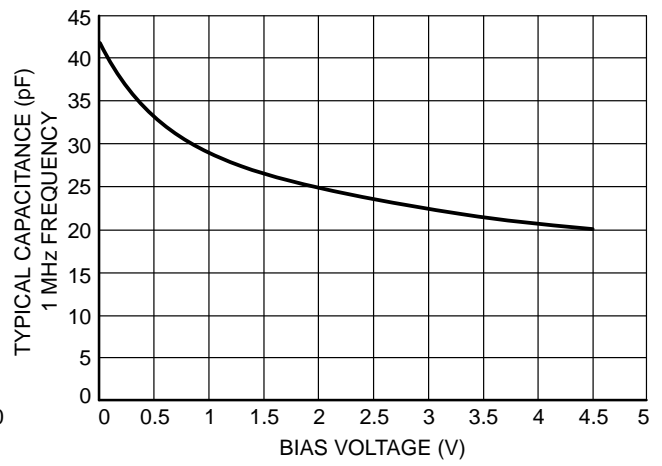


Figure 4. Capacitance

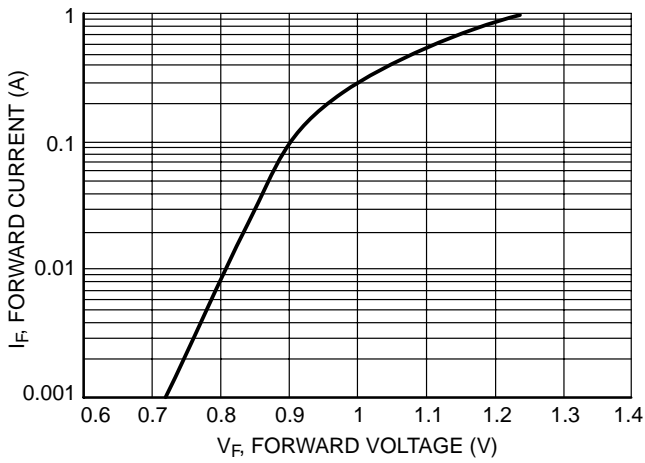


Figure 5. Forward Current versus Forward Voltage

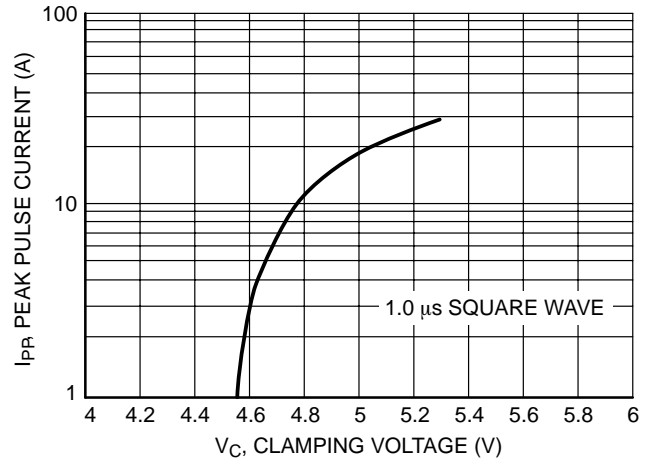
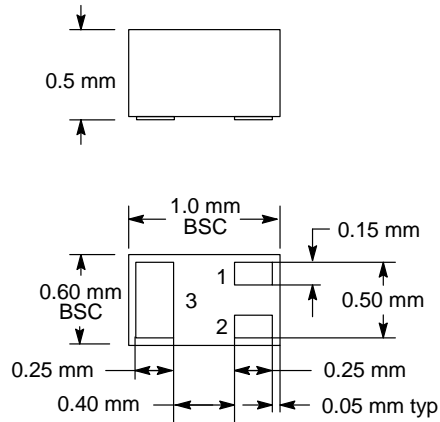


Figure 6. Clamping Voltage versus Peak Pulse Current (Reverse Direction)

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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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