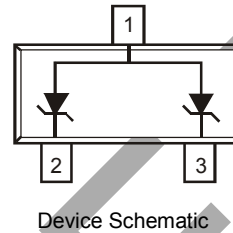


**Features**

- Dual Zeners in Common Anode Configuration
- Low Capacitance (15pF typical)
- Ideally Suited for Automated Insertion
- $\Delta V_Z$  For Both Diodes in One Case is  $\leq 5\%$
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

**Mechanical Data**

- Case: SOT23
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Alloy 42 leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208 <sup>Ⓔ3</sup>
- Polarity: See Diagram
- Approximate Weight: 0.008 grams

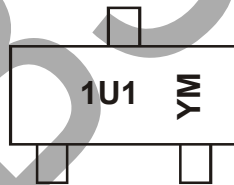


**Ordering Information** (Note 4)

Part Number	Case	Packaging
GZ23C5V6-7	SOT23	3000/Tape & Reel

- Notes:
1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
  2. See [http://www.diodes.com/quality/lead\\_free.html](http://www.diodes.com/quality/lead_free.html) for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. For packaging details, go to our website at <http://www.diodes.com/products/packages.html>.

**Marking Information**



1U1 = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year (ex: Z = 2012)  
 M = Month (ex: 9 = September)

Date Code Key

Year	2012	2013	2014	2015	2016	2017	2018
Code	Z	A	B	C	D	E	F

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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**Maximum Ratings** (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
ESD Protection – Contact Discharge	VESD_Contact	-10, +30	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	VESD_Air	-10, +30	kV	Standard IEC 61000-4-2
ESD Protection – Human Body Model	VESD_HBM	$\pm 8$	kV	MIL-STD-883
ESD Protection – Machine Model	VESD_MM	$\pm 400$	V	MIL-STD-883

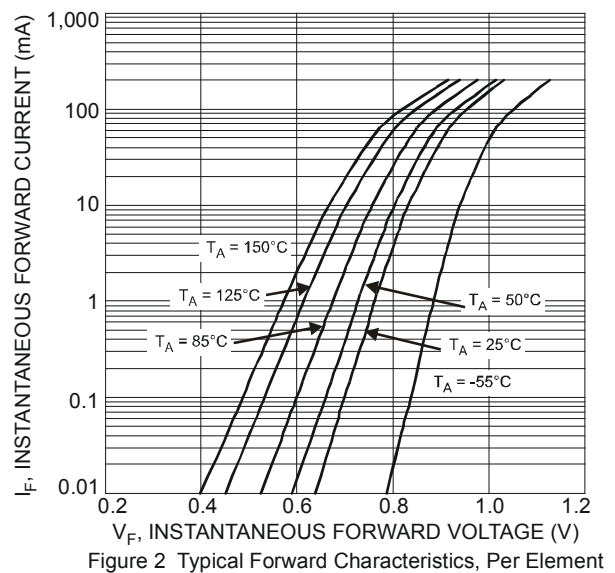
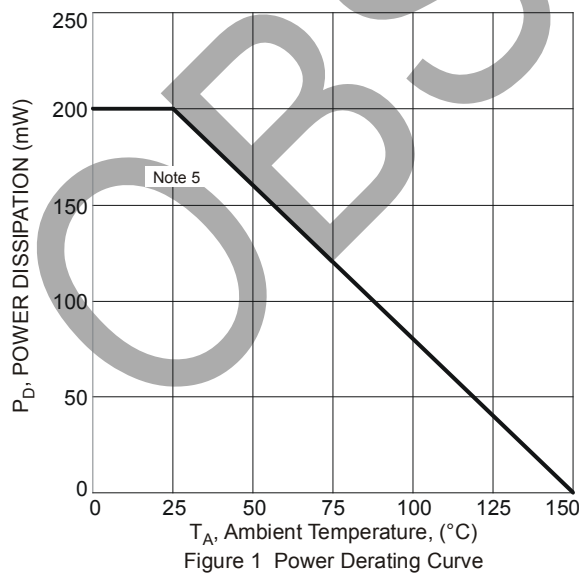
**Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	$P_D$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

**Electrical Characteristics** (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Type Number	Marking Code	Zener Voltage Range (Note 6 & 7)	Maximum Zener Impedance $f = 1\text{kHz}$ (Note 7)		Maximum Total Capacitance (Note 7)	Maximum Reverse Current (Note 6 & 7)
		@ $I_{ZT} = 5.0\text{mA}$	$Z_{ZT} @ I_{ZT} = 5.0\text{mA}$	$Z_{ZK} @ I_{ZK} = 1.0\text{mA}$	$C_T @ V_R = 0\text{V}, f = 1\text{MHz}$	$I_R @ V_R = 2.5\text{V}$
		$V_Z$ (Volts)	$\Omega$	$\Omega$	pF	$\mu\text{A}$
GZ23C5V6	1U1	5.310 - 5.920	10	30	20	1.0

- Notes: 5. Mounted on FR4 PC Board with recommended pad layout which can be found on our website at <http://www.diodes.com>.  
 6. Short duration pulse test used to minimize self-heating effect.  
 7. Electrical characteristics are applicable for each diode element. Pin 1 to 3 or pin 2 to 3.



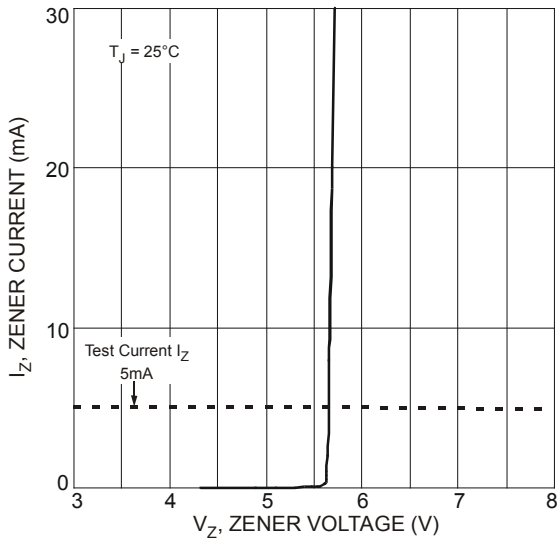
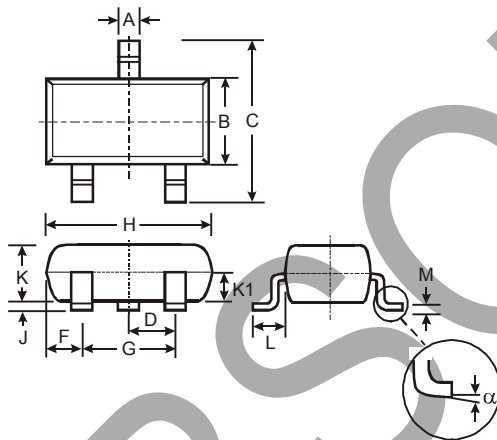


Figure 3 Typical Zener Breakdown Characteristics, Per Element

### Package Outline Dimensions

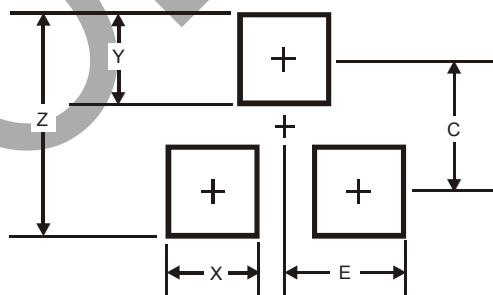
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.903	1.10	1.00
K1	-	-	0.400
L	0.45	0.61	0.55
M	0.085	0.18	0.11
$\alpha$	0°	8°	-
All Dimensions in mm			

### Suggested Pad Layout

Please see AP02001 at <http://www.diodes.com/datasheets/ap02001.pdf> for the latest version.



Dimensions	Value (in mm)
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

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