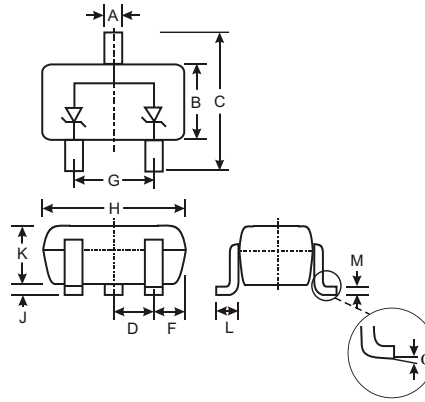


### Features

- Nominal Zener Voltages: 5.6V, 6.8V, 10V, 18V
- Ultra-Small Surface Mount Package
- Ideal For Transient Suppression

### Mechanical Data

- Case: SOT-323, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminal Connections: See Diagram
- Marking: See Below & Page 2
- Weight: 0.006 grams (approx.)
- Ordering Information: See Page 2



SOT-323		
Dim	Min	Max
A	0.25	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.18
$\alpha$	0°	8°
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 10\text{mA}$	$V_F$	0.9	V
Power Dissipation (Note 1)	$P_d$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^\circ\text{C}$

Type Number	Marking Code	Zener Voltage Range (Note 2)			Maximum Zener Impedance (Note 3)				Maximum Reverse Current (Note 2)		Temperature Coefficient of Zener Voltage @ $I_{ZT} = 5\text{mA}$	
		$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$	$V_R$	$T_C (mV/^\circ\text{C})$	
		Nom (V)	Min (V)	Max (V)	$\Omega$	mA	$\Omega$	mA	$\mu\text{A}$	V	Min	Max
AZ23C5V6W	KD9	5.6	5.32	5.88	40	5.0	400	1.0	1.0	2.0	-2.0	2.5
AZ23C6V8W	KDB	6.8	6.47	7.14	15	5.0	80	1.0	2.0	4.0	1.2	4.5
AZ23C10W	KDF	10	9.4	10.6	15	5.0	70	1.0	0.2	7.0	4.5	8.0
AZ23C18W	KDL	18	16.8	19.1	50	5.0	170	1.0	0.1	12.6	12.4	16.0

- Notes:
- Mounted on FR4 PC Board with recommended pad layout at <http://www.diodes.com/datasheets/ap02001.pdf>.
  - Short duration pulse test used so as not to induce significant self-heating.
  - $f = 1\text{KHz}$ .

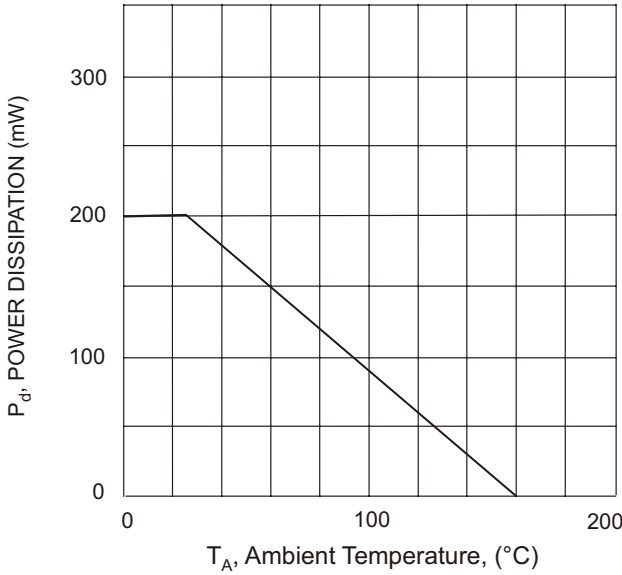


Fig. 1 Power Derating Curve

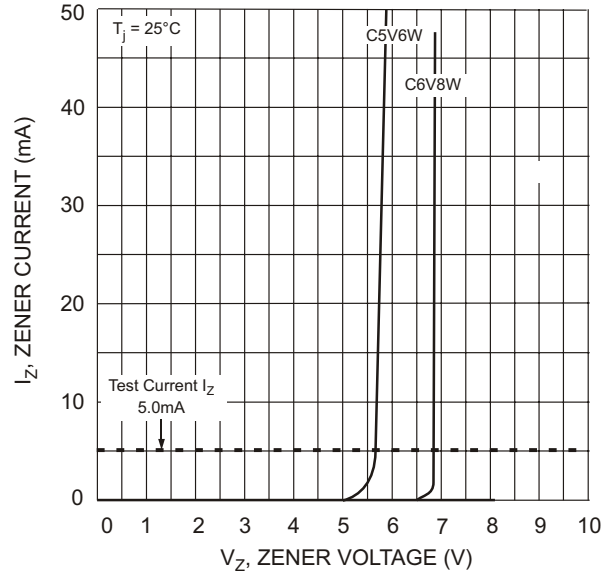


Fig. 2 Zener Breakdown Characteristics

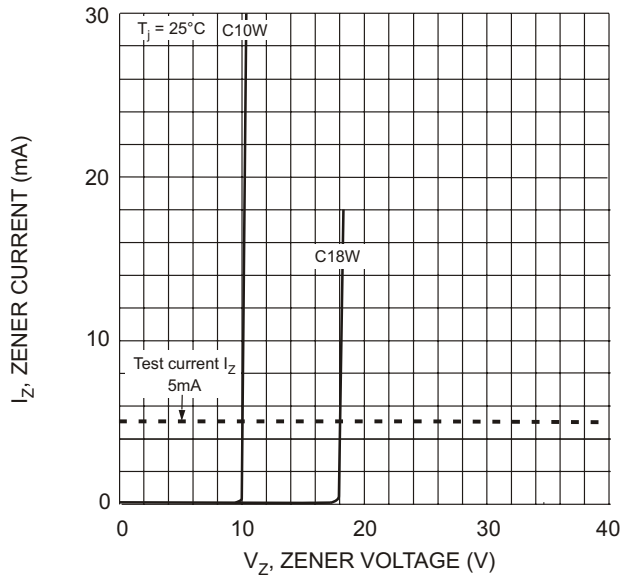


Fig. 3 Zener Breakdown Characteristics

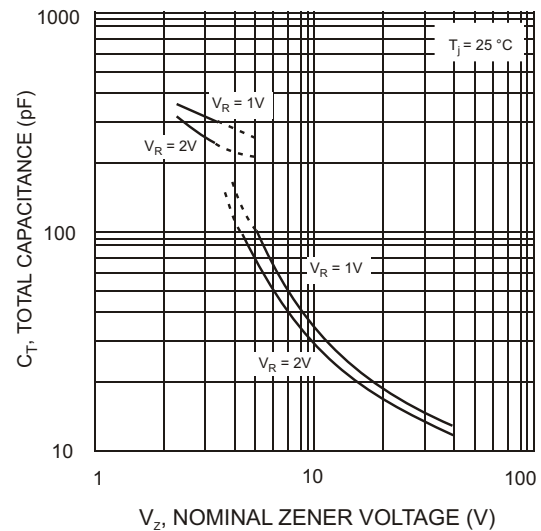


Fig. 4 Total Capacitance vs Nominal Zener Voltage

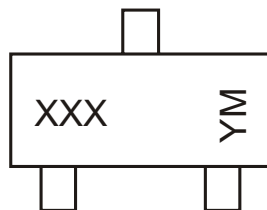
**Ordering Information** (Note 4)

Device	Packaging	Shipping
(Type Number)-7*	SOT-323	3000/Tape & Reel

\* Add "-7" to the appropriate type number in Table 1 from Page 2 example: 6.8V Zener = AZ23C6V8W-7.

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



XXX = Product Type Marking Code (See Table)  
 YM = Date Code Marking  
 Y = Year ex: N = 2002  
 M = Month ex: 9 = September

Date Code Key

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Code	J	K	L	M	N	P	R	S	T	U	V	W

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