

500mW, SOD-523 Zener Diode**Features**

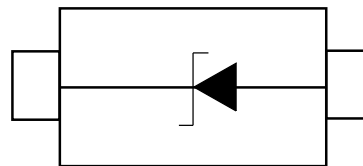
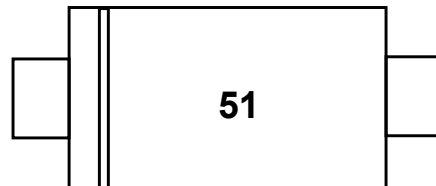
- Power Dissipation : 500mW
- Package : SOD-523
- Zener voltage : 5.1V
- Zener current : 5mA
- Tolerance : $\pm 5\%$
- Reverse leakage : See characteristics
- ESD Rating : $\pm 15\text{KV}$
- Peak power : 300W
- Pb-Free

Mechanical Characteristics

- **Case** : SOD-523 Molded Plastic
- **Polarity** : Cathode Band
- **Weight** : 0.01 grams (approx.)
- **Soldering temperature** : 260°C per 10 second.
- **Storage temperature** : -55°C to +150°C

Applications

- Mobile phone
- GPS
- MID
- Portable Media Player
- Set-Top BOX
- HD Player

Dimensions and Pin Configuration**SOD-523****Pin configuration (Top view)****Marking Information****51 = Device Marking Code****Ordering Information**

Device	Package	Shipping
PZ04231D5	SOD-523	3000/ Tape & Reel

Maximum Ratings & Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

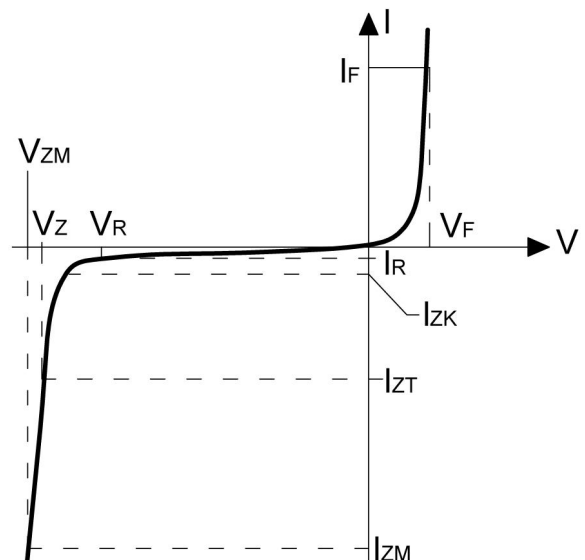
Items	Symbol	Value	Unit
Power dissipation	P_D	500	mW
Forward voltage	V_F	0.9	V
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	340	$^\circ\text{C} / \text{W}$
Storage temperature range	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

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

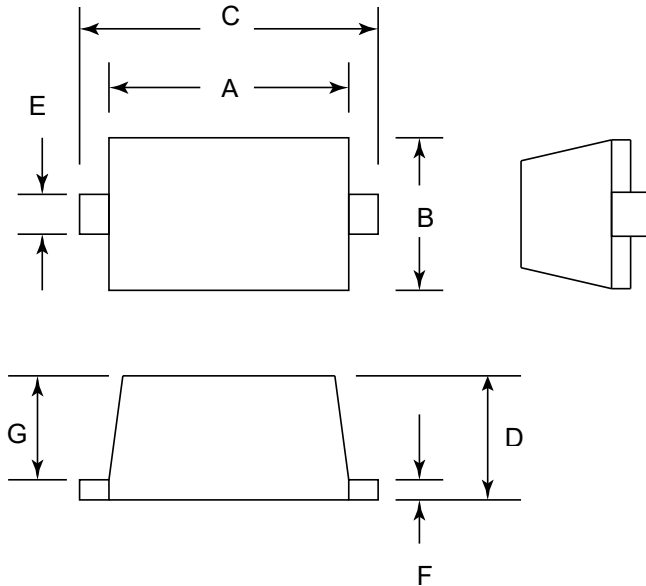
Device	Zener Impedance (V_Z) @ $I_{ZT} = 5\text{mA}$			Dynamic resistance		Reverse leakage current		Junction capacitance
	Min. (V)	Typ. (V)	Max. (V)	$Z_{ZK} (\Omega) @ I_{ZK} = 1\text{mA}$	$Z_{ZT} (\Omega) @ I_{ZT} = 5\text{mA}$	$I_R \text{ MAX} (\mu\text{A})$	V_R (V)	C (pF)
PZ04231D5	4.8	5.1	5.5	480	50	15	4.2	110

Electrical Characteristics

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Zener (DC)current at specified test point
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Zener (DC)current near breakdown knee
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_{ZM}	Maximum Zener current
V_{ZM}	Maximum Zener voltage
P_D	Maximum steady-state power dissipation($=I_{ZM} \times V_{ZM}$)
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F

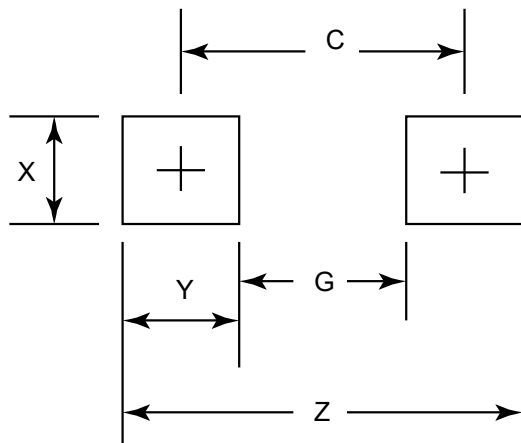


SOD-523 Package Outline Drawing



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	1.50	1.70	0.059	0.067
D	0.50	0.70	0.020	0.028
E	0.25	0.35	0.010	0.014
F	0.10	0.20	0.004	0.008
G	0.50	0.70	0.020	0.028

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	1.70	0.067
G	1.10	0.043
X	0.80	0.031
Y	0.60	0.024
Z	2.30	0.091