

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

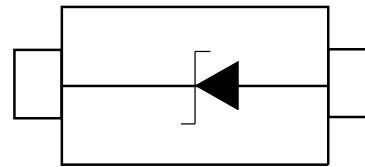
- Power Dissipation : 500mW
- Package : SOD-523
- Zener voltage : 5.1V
- Zener current : 5mA
- Tolerance : $\pm 5\%$
- Reverse leakage : See characteristics
- ESD Rating : $\pm 15\text{KV}$
- Peak power : 300W
- Pb-Free

Mechanical Characteristics

- **Case** : SOD-523 Molded Plastic
- **Moisture Sensitivity** : Level 1 per J-STD-020
- **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****ZH = Device Marking Code****Ordering Information**

Device	Package	Shipping
PZ04201D5	SOD-523	3000/ Tape & Reel

Maximum Ratings & Thermal Characteristics (T_A = 25 °C unless otherwise noted)

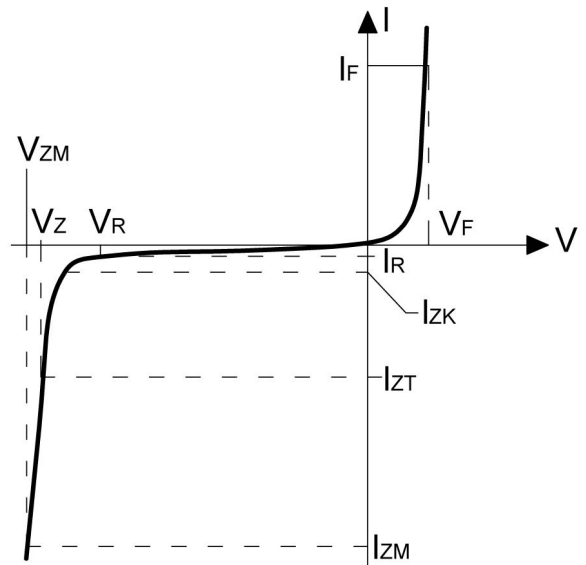
Items	Symbol	Value	Unit
Power dissipation	P _D	500	mW
Forward voltage	V _F	0.9	V
Typical thermal resistance, junction to ambient	R _{θJA}	340	°C / W
Storage temperature range	T _{STG}	-55 ~ +150	°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

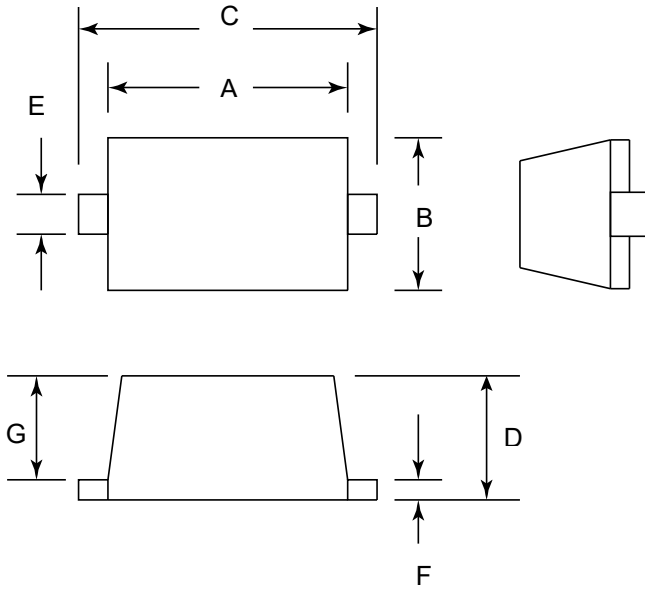
Device	Zener Impedance (V _Z) @I _{ZT} = 5mA			Dynamic resistance		Reverse leakage current		Junction capacitance
	Min. (V)	Typ. (V)	Max. (V)	Z _{ZK} (Ω) @ I _{ZK} = 1mA	Z _{ZT} (Ω) @ I _{ZT} = 5mA	I _R MAX (μA)	V _R (V)	C (pF)
PZ04201D5	4.8	5.1		480	50	20	4.2	110

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} ×V _{ZM})
I _R	Reverse Leakage Current @ V _R
V _R	Reverse Voltage
I _F	Forward Current
V _F	Forward Voltage @ I _F

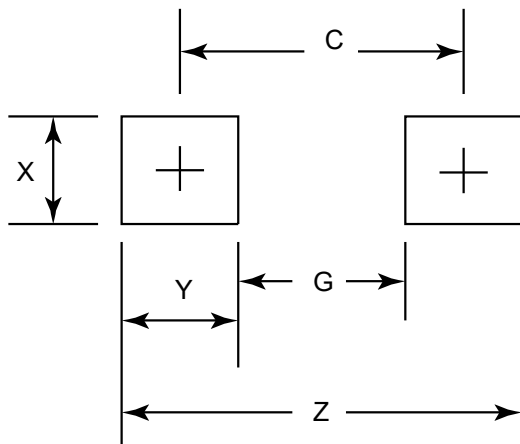


SOD-523 Package Outline Drawing



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

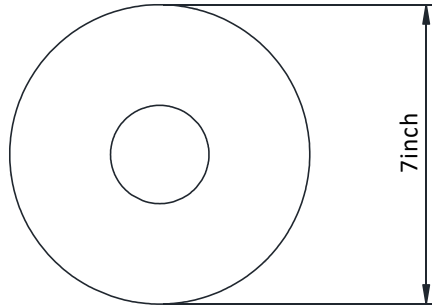
Suggested Land Pattern



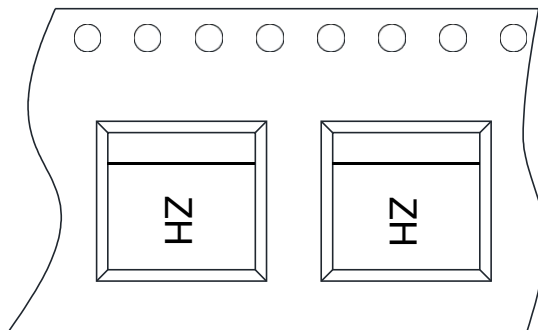
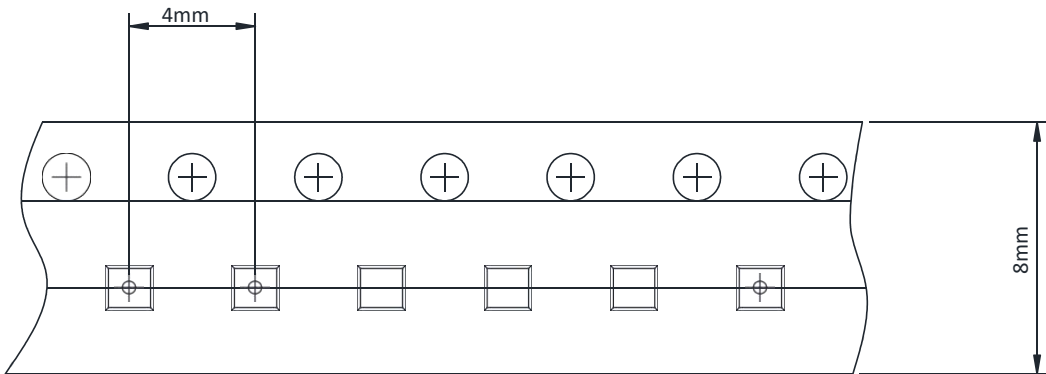
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	1.70	0.067
G	1.10	0.043
X	0.80	0.031
Y	0.60	0.024
Z	2.30	0.091

TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



User Direction of Feed