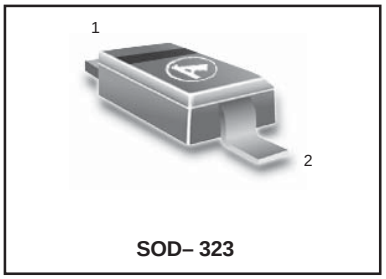
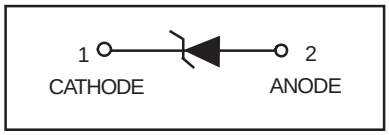
Zener Voltage Regulators

200 mW SOD-323 Surface Mount

LUDZS5.6BT1G

S-LUDZS5.6BT1G





●FEATURES

1)Steady State Power Rating of 200 mW
2)Small Body Outline Dimensions: 0.067" x 0.049"(1.7 mm x 1.25 mm).
Low Body Height: 0.035" (0.9 mm)
3)Package Weight: 4.507 mg/unit
4)ESD Rating of Class 3 per Human Body Model
5)Pb-Free package is available.
6) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.
7)We declare that the material of product compliant with RoHS requirements and Halogen Free.

●DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LUDZS5.6BT1G	C2	3000/Tape&Reel
LUDZS5.6BT3G	C2	10000/Tape&Reel

●MAXIMUM RATINGS(Ta = 25℃)

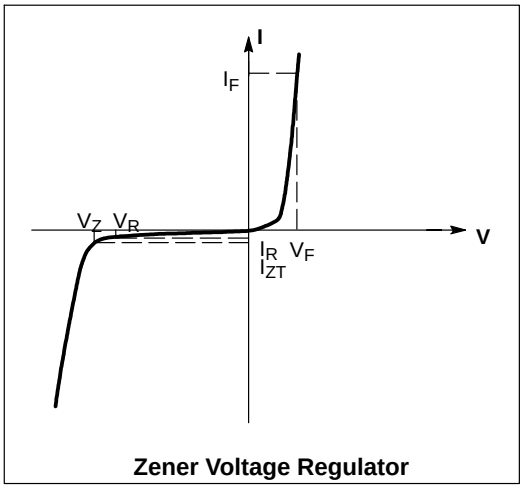
Parameter	Symbol	Limits	Unit
Thermal Resistance – Junction-to-Ambient	$R_{\theta JA}$	635	°C/W
Junction temperature	T_J	150	°C
Operating and Storage Temperature	Topr, Tstg	–55 to +150	°C
Power dissipation	P	200	mW

LUDZS5.6BT1G,S-LUDZS5.6BT1G

●ELECTRICAL CHARACTERISTICS (Ta= 25℃)

(T_A = 25°C unless otherwise noted, VF = 0.9 V Max. @ IF = 10 mA)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F
ΘV_Z	Maximum Temperature Coefficient of V_Z
C	Max. Capacitance @V_R = 0 and f = 1 MHz



Zener Voltage Regulator

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Zener voltage	Vz	5.49	–	5.73	V	Iz=5mA
Operating resistance	Zz	–	–	60	Ω	Iz=5mA
Rising operating resistance	Zzk	–	–	200	Ω	Iz=0.5mA
Reverse current	IR	–	–	1	μA	VR=2.5V

ELECTRICAL CHARACTERISTIC CURVES

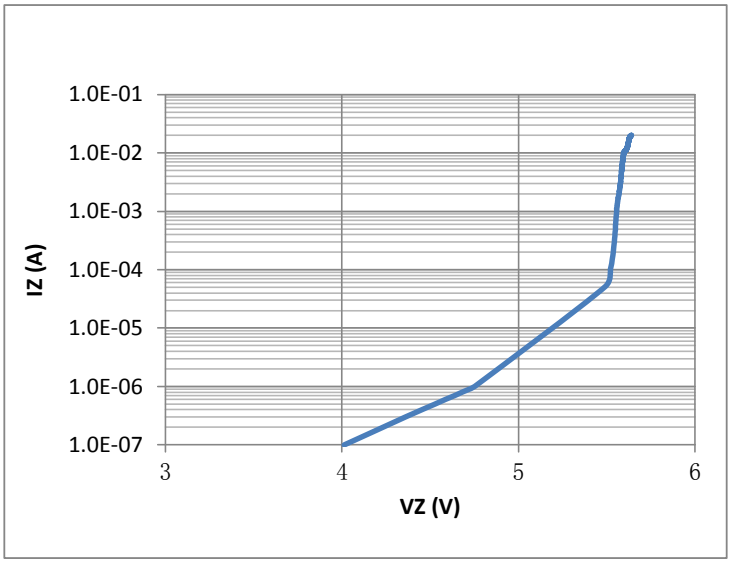
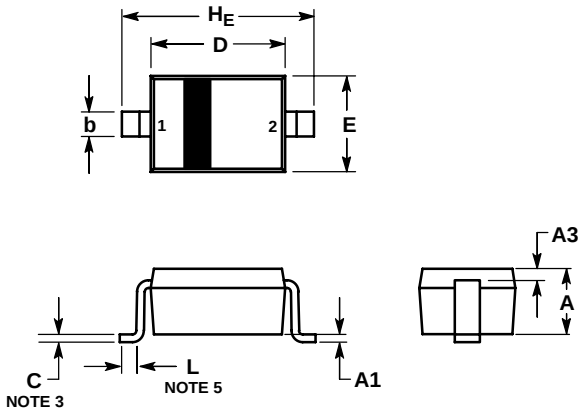


Fig 1. Zener Voltage Characteristics

LUDZS5.6BT1G,S-LUDZS5.6BT1G

SOD-323



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DIMENSION L IS MEASURED FROM END OF RADIUS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15 REF			0.006 REF		
b	0.25	0.32	0.4	0.010	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*