

Zener Voltage Regulators

200 mW SOD-323 Surface Mount

● APPLICATIONS

This Zener diode is packaged in a SOD-323 surface mount package that has a power dissipation of 200 mW. It is designed to provide voltage regulation protection and is especially attractive in situations where space is at a premium. It's well suited for applications such as cellular phones, hand held portables, and high density PC boards.

● 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

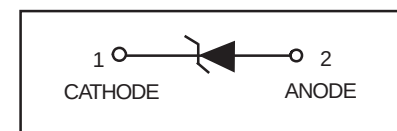
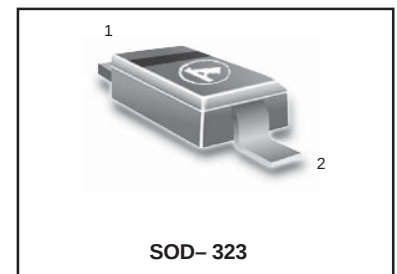
Device	Marking	Shipping
LM3Z5V6T1G	0C	3000/Tape&Reel
LM3Z5V6T3G	0C	10000/Tape&Reel

● MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Thermal Resistance – Junction-to-Ambient	R _{θJA}	635	°C/W
Operating and Storage Temperature	T _J , T _{stg}	-65 to +150	°C
Power dissipation	P	200	mW

LM3Z5V6T1G

S-LM3Z5V6T1G

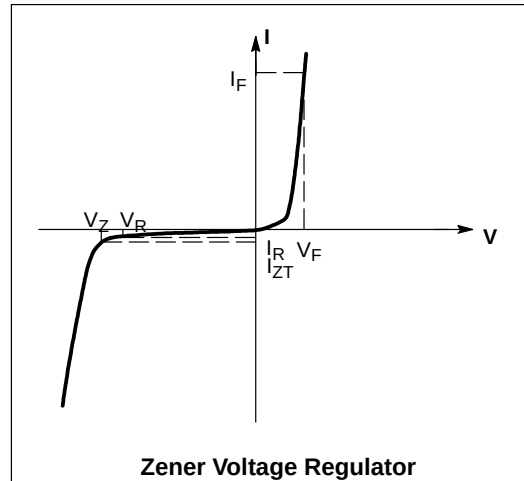


LM3Z5V6T1G,S-LM3Z5V6T1G

● ELECTRICAL CHARACTERISTICS (Ta= 25°C)

(Ta = 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



Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Zener voltage	V _Z	5.2	5.6	6	V	I _{ZT} =5mA
Operating resistance	Z _{ZT}	—	—	40	Ω	I _{ZT} =5mA
Rising operating resistance	Z _{ZK}	—	—	700	Ω	I _{ZK} =0.5mA
Reverse current	I _R	—	—	1	μA	V _R =2.0V
Maximum Temperature Coefficient of V _Z	ΘV _Z	-2	—	2.5	mV/k	I _{ZT} =5mA
Capacitance	C	—	—	200	pF	V _R = 0 , f = 1 MHz

LM3Z5V6T1G,S-LM3Z5V6T1G

ELECTRICAL CHARACTERISTIC CURVES

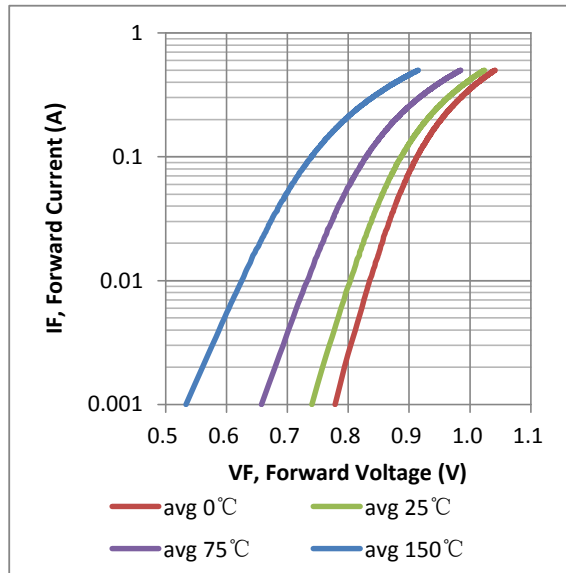


FIG.1 IF VS.VF

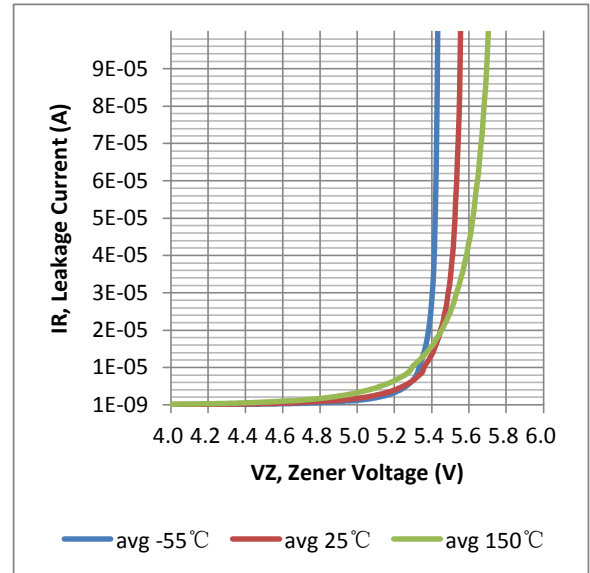


FIG.2 IR VS.VZ

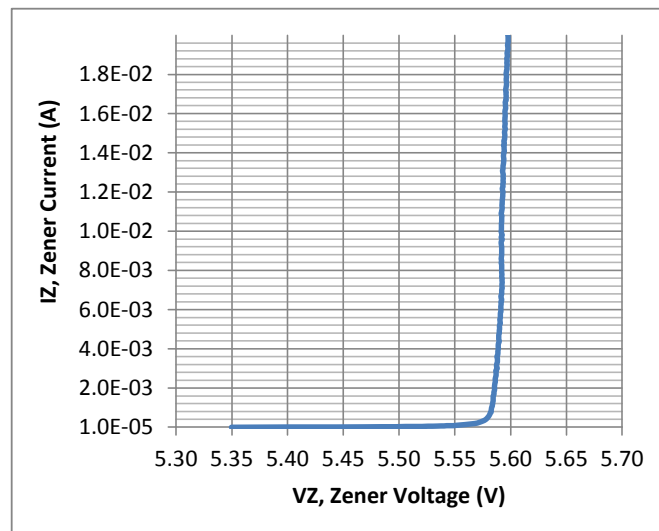
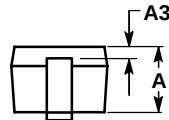
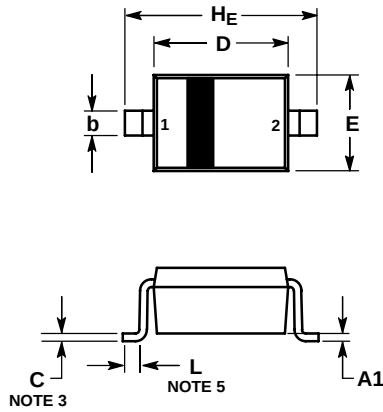


FIG.3 IZ VS.VZ

LM3Z5V6T1G,S-LM3Z5V6T1G

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.

DIM	MILLIMETERS			INCHES		
	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		
HE	2.30	2.50	2.70	0.090	0.098	0.105

SOLDERING FOOTPRINT*

