

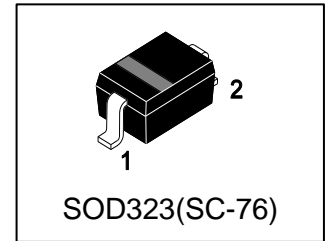
# LM3Z18VT1G

## S-LM3Z18VT1G

Zener Voltage Regulators  
200 mW SOD-323 Surface Mount

### 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Steady state power rating of 200 mW
- ESD rating of class 3 per human body model

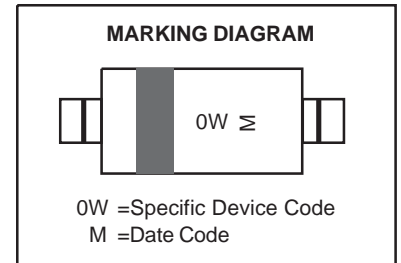


### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LM3Z18VT1G	0W	3000/Tape&Reel
LM3Z18VT3G	0W	10000/Tape&Reel

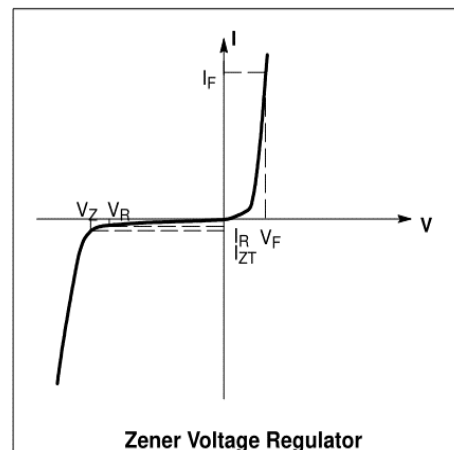
### 3. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	200 1.5	mW mW/°C
Thermal Resistance, Junction-to-Ambient	ROJA	635	°C/W
Junction and Storage temperature	TJ, Tstg	-65 ~ +150	°C



### 4. ELECTRICAL CHARACTERISTICS (Ta= 25 °C) (VF = 0.9 V Max. @ IF = 10 mA for all types)

Symbol	Parameter
VZ	Reverse Zener Voltage @ IZT
IZT	Reverse Current
ZZT	Maximum Zener Impedance @ IZT
IZK	Reverse Current
ZZK	Maximum Zener Impedance @ IZK
IR	Reverse Leakage Current @ VR
VR	Reverse Voltage
IF	Forward Current
VF	Forward Voltage @ IF
θVZ	Maximum Temperature Coefficient of VZ
C	Max. Capacitance @VR = 0 and f = 1 MHz



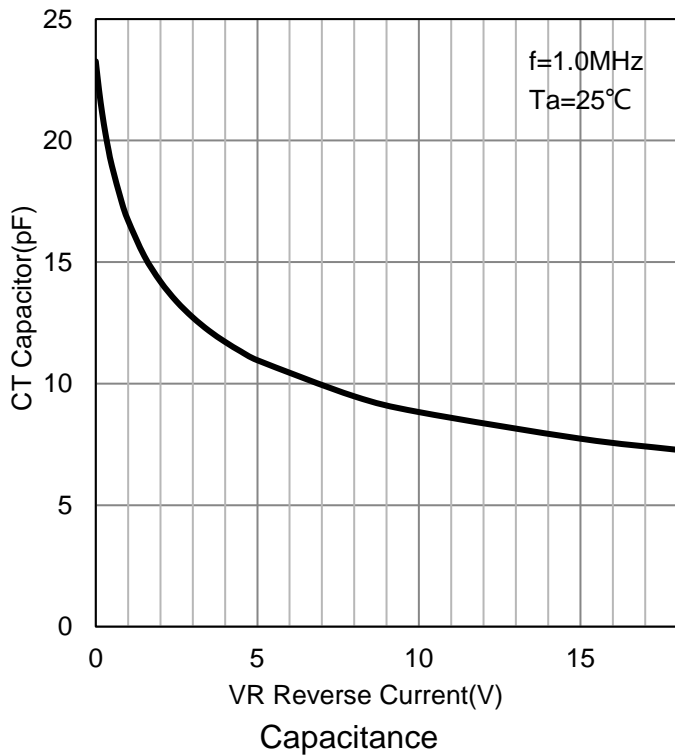
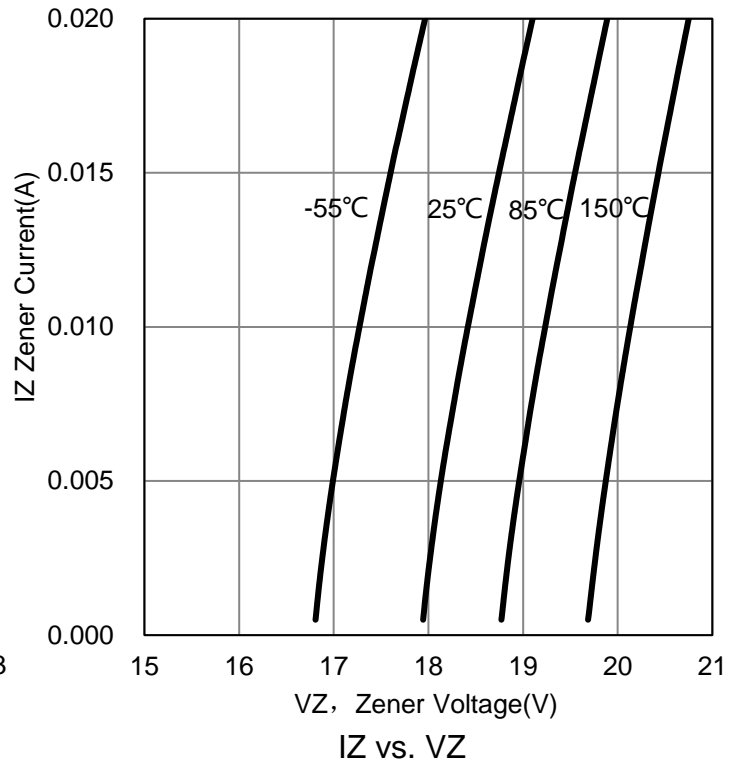
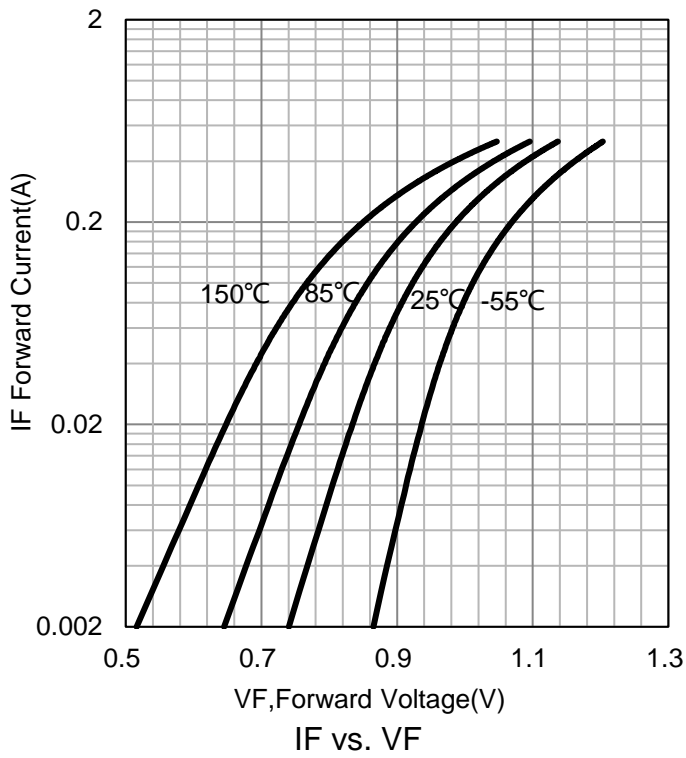
**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Zener voltage (IZT=5mA)	VZ	16.8	18	19.1	V
Operating resistance (IZT=5mA)	ZZT	-	-	45	Ω
Rising operating resistance (IZK=0.5mA)	ZZK	-	-	400	Ω
Reverse current (VR=12.6V)	IR	-	-	0.05	μA
Maximum Temperature Coefficient of VZ (IZT=5mA)	ΘVZ	12.4	-	16	mV/k
Capacitance (VR=0 , f=1 MHz)	C	-	-	100	pF

1. FR-4 Minimum Pad

2. Zener voltage is measured with a pulse test current IZ at an ambient temperature of 25°C.

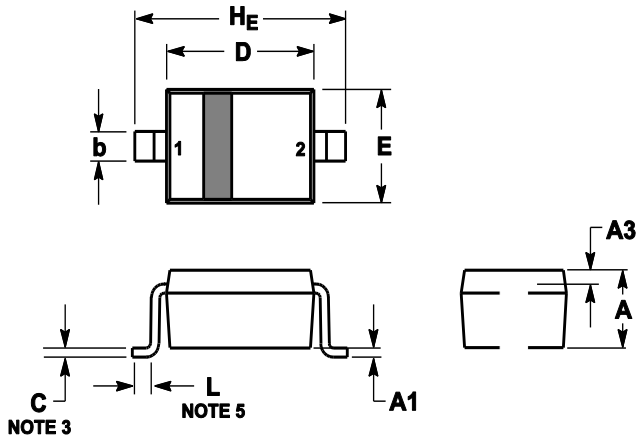
**6.ELECTRICAL CHARACTERISTICS CURVES**



## 7. OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.3	2.5	2.7	0.09	0.098	0.105

## 8. SOLDERING FOOTPRINT

