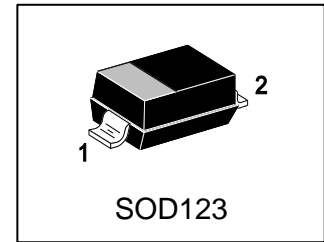


# LMSZ5232BT1G

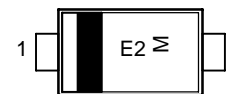
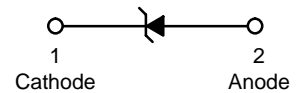
## S-LMSZ5232BT1G

Zener Voltage Regulators  
500 mW SOD-123 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.
- 500 mW Rating on FR-4 or FR-5 Board
- ESD rating of class 3 per human body model
- Package designed for optimal automated board assembly
- Small package size for high density applications
- General purpose, medium current



### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMSZ5232BT1G	E2	3000/Tape&Reel
LMSZ5232BT3G	E2	10000/Tape&Reel

E2 = Device Code  
M = Date Code

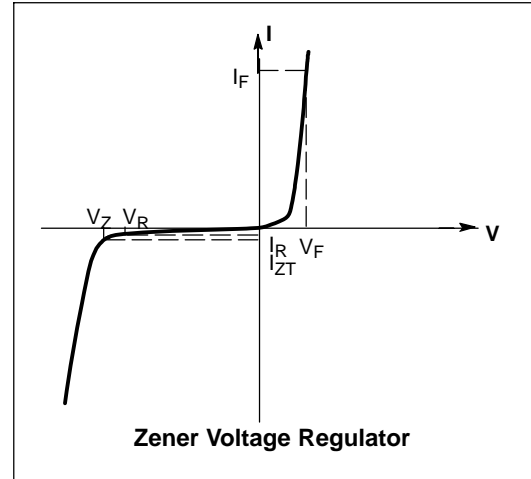
### 3. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TL = 75°C Derate above 75°C	PD	500 6.7	mW mW/°C
Thermal Resistance, Junction-to-Ambient(Note 2)	RθJA	340	°C/W
Thermal Resistance, Junction-to-Lead(Note 2)	RθJL	150	°C/W
Junction and Storage temperature	TJ, Tstg	-55 ~ +150	°C

1. FR-5 = 3.5 X 1.5 inches, using the minimum recommended footprint.
2. Thermal Resistance measurement obtained via infrared Scan Method.

**4. ELECTRICAL CHARACTERISTICS (Ta= 25°C) (VF ≤ 0.9 V @ IF = 10 mA)**

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

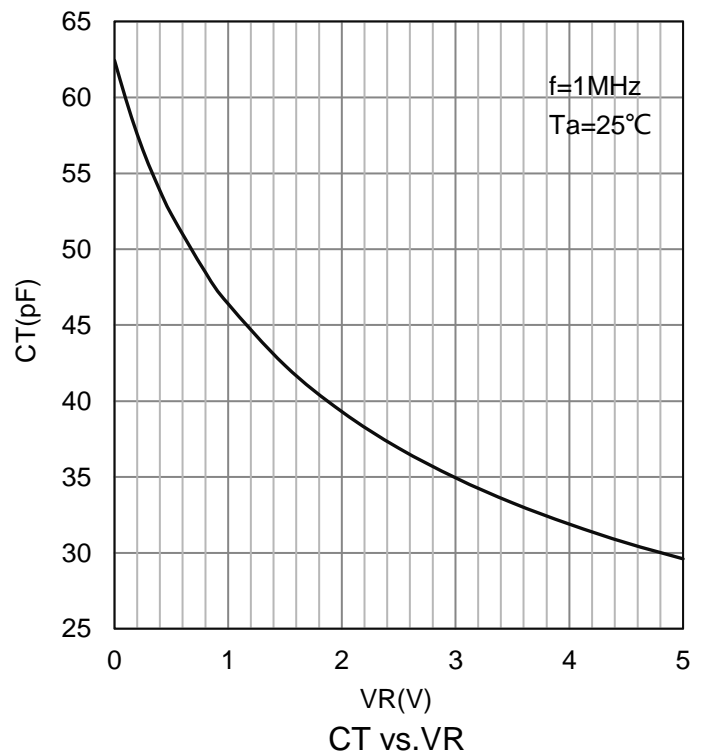
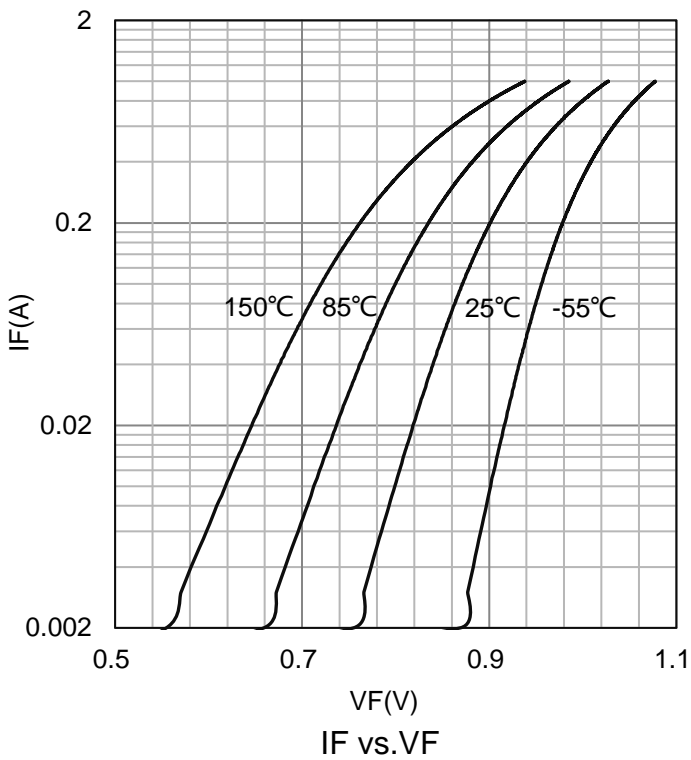
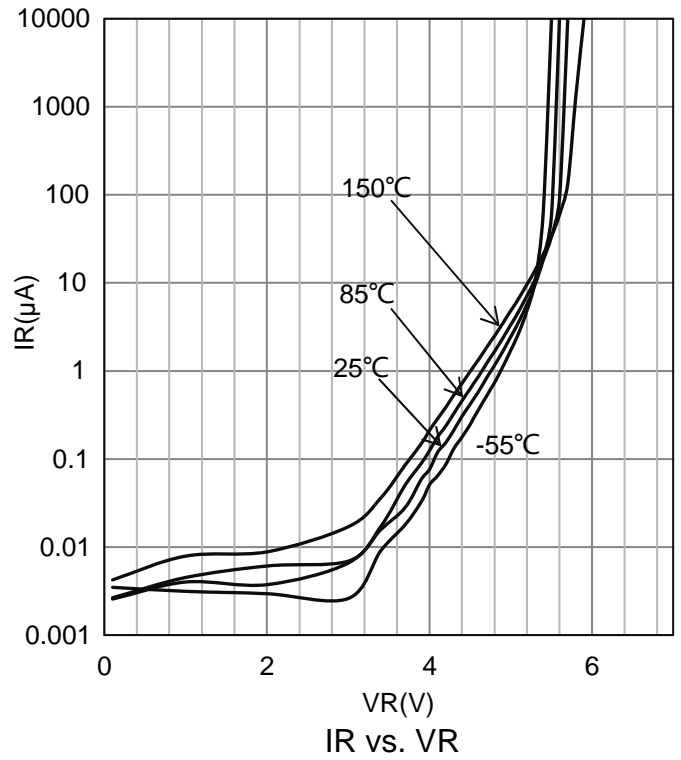
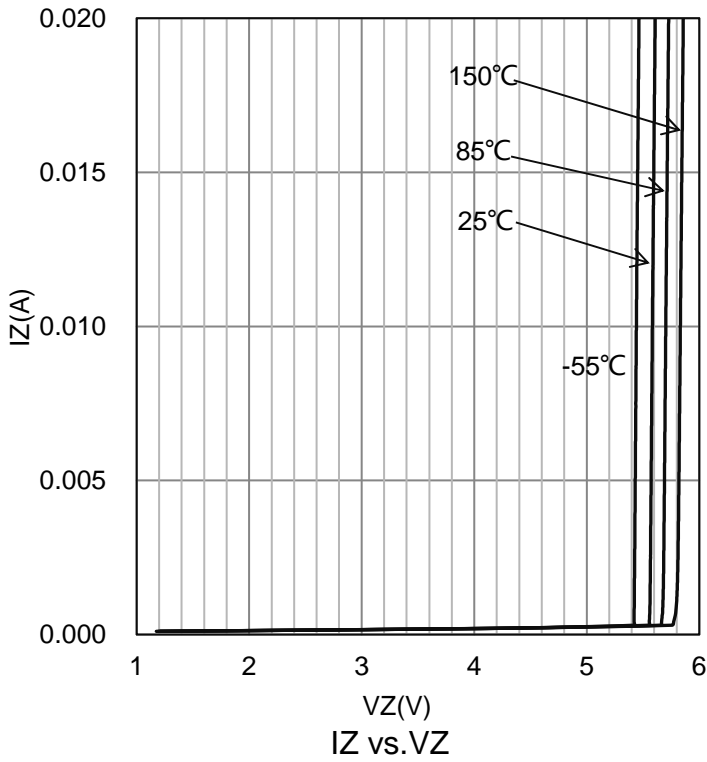


**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Zener voltage(Note 3 and 4) (IZT=20mA)	VZ	5.32	5.6	5.88	V
Operating resistance(Note 5) (IZT=20mA)	ZZT	-	-	11	Ω
Rising operating resistance(Note 5) (IZK=0.25mA)	ZZK	-	-	1600	Ω
Reverse current (VR=3.0V)	IR	-	-	5	μA

3. The type numbers shown have a standard tolerance of ±5% on the nominal Zener voltage.
4. Nominal Zener voltage is measured with the device junction in thermal equilibrium at TL = 30°C±1°C.
5. ZZT and ZZK are measured by dividing the AC voltage drop across the device by the ac current applied.  
The specified limits are for IZ(AC) = 0.1 IZ(dc) with the AC frequency = 1 KHz.

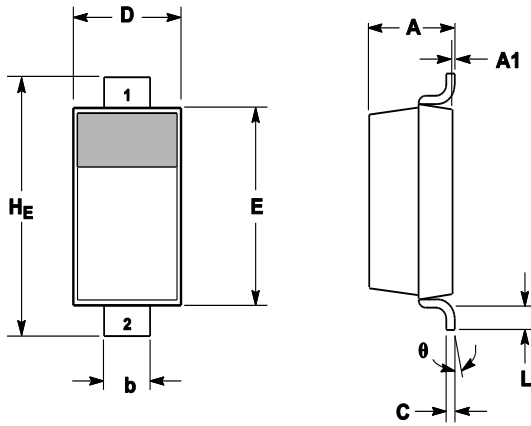
**6.ELECTRICAL CHARACTERISTICS CURVES**



### 7. OUTLINE AND DIMENSIONS

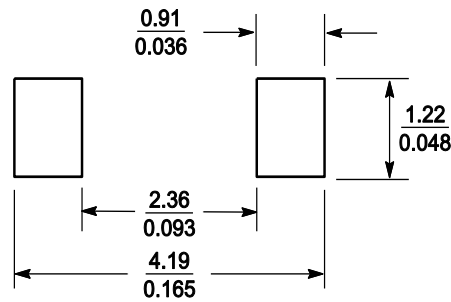
Notes:

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	0.94	1.17	1.35	0.037	0.046	0.053
A1	0.00	0.05	0.10	0.000	0.002	0.004
b	0.51	0.61	0.71	0.020	0.024	0.028
c	---	---	0.15	---	---	0.006
D	1.40	1.60	1.80	0.055	0.063	0.071
E	2.54	2.69	2.84	0.100	0.106	0.112
H <sub>E</sub>	3.56	3.68	3.86	0.140	0.145	0.152
L	0.25	---	---	0.010	---	---
θ	0°	---	10°	0°	---	10°

### 8. SOLDERING FOOTPRINT



SCALE 10:1 (mm / inches)

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