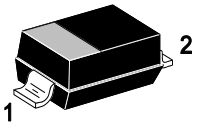
LMSZ5235BT1G
S-LMSZ5235BT1G

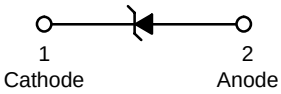
Zener Voltage Regulators
500 mW SOD-123 Surface Mount

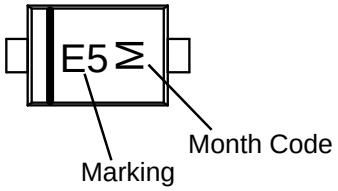


SOD123

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
- Package designed for optimal automated board assembly
- Small package size for high density applications
- General purpose, medium current
- ESD rating of Class 3 per Human Body Model





2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMSZ5235BT1G	E5	3000/Tape&Reel
LMSZ5235BT3G	E5	10000/Tape&Reel

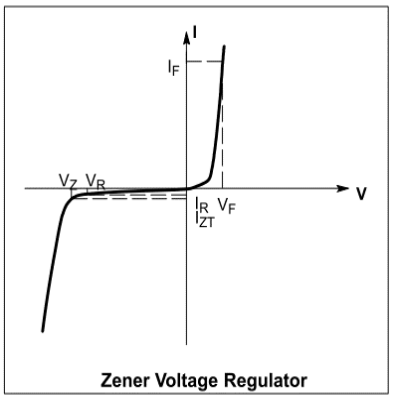
3. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR−5 Board (Note 1) @ TL = 75ºC Derate above 75ºC	PD	 500 6.7	 mW mW/ºC
Thermal Resistance, Junction–to–Ambient(Note 2)	RΘJA	340	ºC/W
Thermal Resistance, Junction–to–Lead(Note 2)	RΘJL	150	ºC/W
Junction and Storage Temperature Range	TJ,Tstg	−55～+150	ºC

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



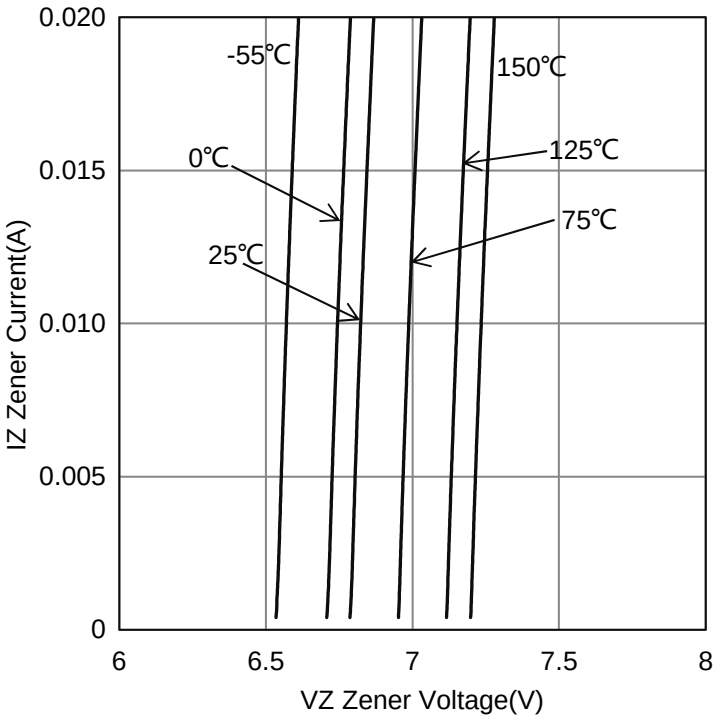
Zener Voltage Regulator

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

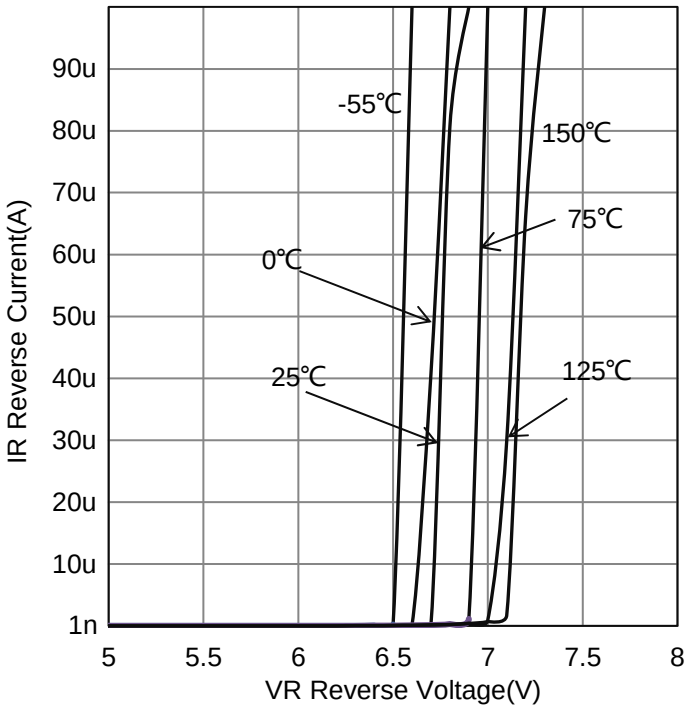
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Zener voltage(Note 3 and 4) (IZT=20mA)	VZ	6.46	6.8	7.14	V
Zener Impedance(Note 5) (IZT=20mA)	ZZT	-	-	5	Ω
Rising operating resistance(Note 5) (IZK=0.25mA)	ZZK	-	-	750	Ω
Reverse leakage current (VR=5V)	IR	-	-	3	μA

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.

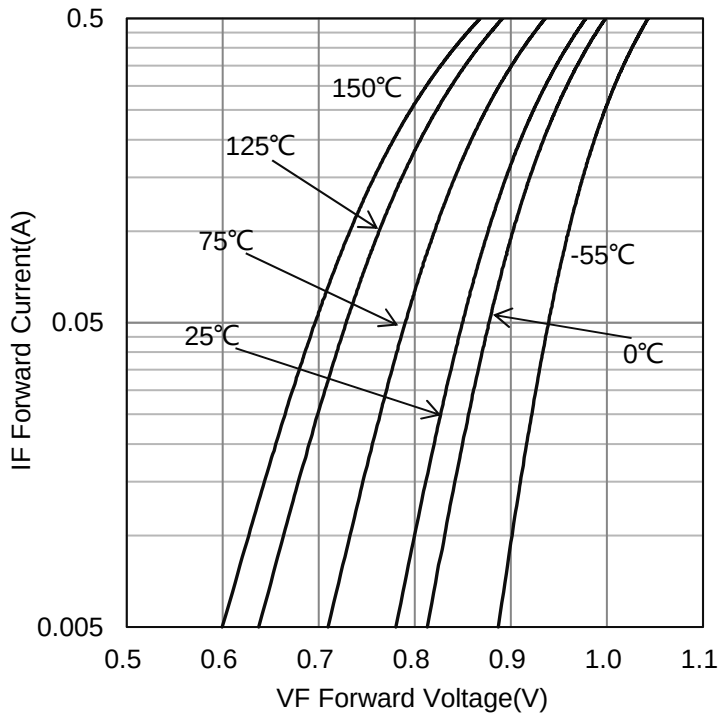
6.ELECTRICAL CHARACTERISTICS CURVES



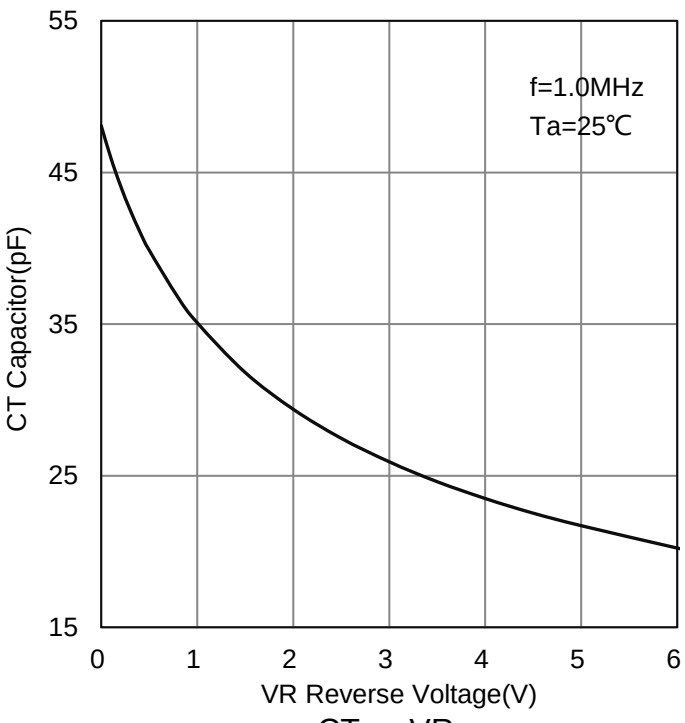
IZ vs.VZ



IR vs. VR

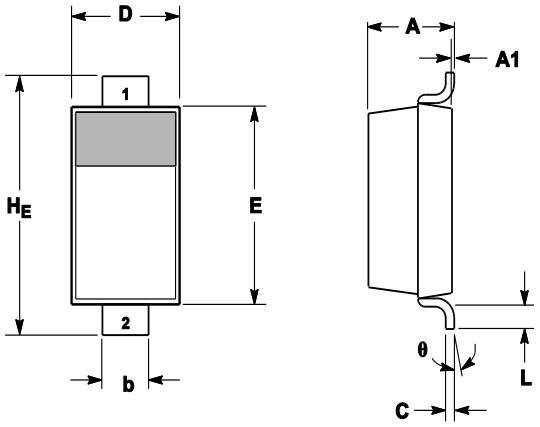


IF vs.VF



CT vs.VR

7.OUTLINE AND DIMENSIONS

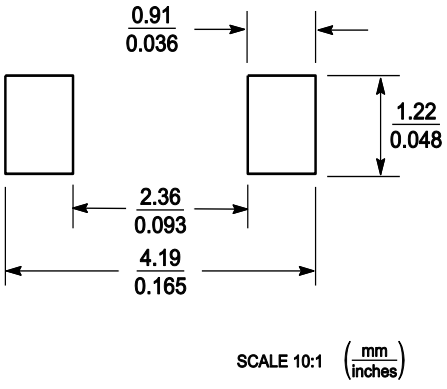


Notes:

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.

	MILLIMETERS			INCHES		
DIM	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_E	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



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