

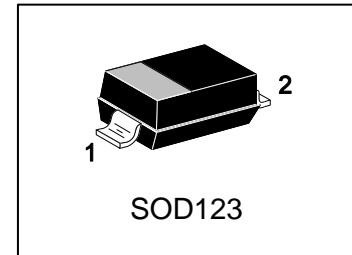
# LMBR0530T1G

## S-LMBR0530T1G

Surface Mount Schottky Power Rectifier

### 1. FEATURES

- Guardring for Stress Protection
- Low Forward Voltage
- 125°C Operating Junction Temperature
- Epoxy Meets UL 94 V-0 @ 0.125 in
- Package Designed for Optimal Automated Board Assembly
- 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.



### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMBR0530T1G	B3	3000/Tape&Reel
LMBR0530T3G	B3	10000/Tape&Reel

### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	VRRM	30	V
Working Peak Reverse Voltage	VRWM	30	V
DC Blocking Voltage	VR	30	V
Average Rectified Forward Current (Rated VR , TL = 100°C)	IF(AV)	0.5	A
Non-Repetitive Peak Surge Current(Surge Applied at Rated Load Conditions Half-wave,Single Phase, 60 Hz)	IFSM	5.5	A
Storage Temperature Range	Tstg	-65 to +150	°C
Operating/Junction Temperature Range	Tj	-65 to +125	°C
Voltage Rate of Change(Rated VR)	dv/dt	1000	V/μS
ESD Rating: Machine Model = C		> 400	V
Human Body Model = 3B		> 8000	

### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Thermal Resistance - Junction-to-Ambient (Note 1)	RθJA	206	°C/W
Thermal Resistance - Junction-to-Lead	RθJL	150	

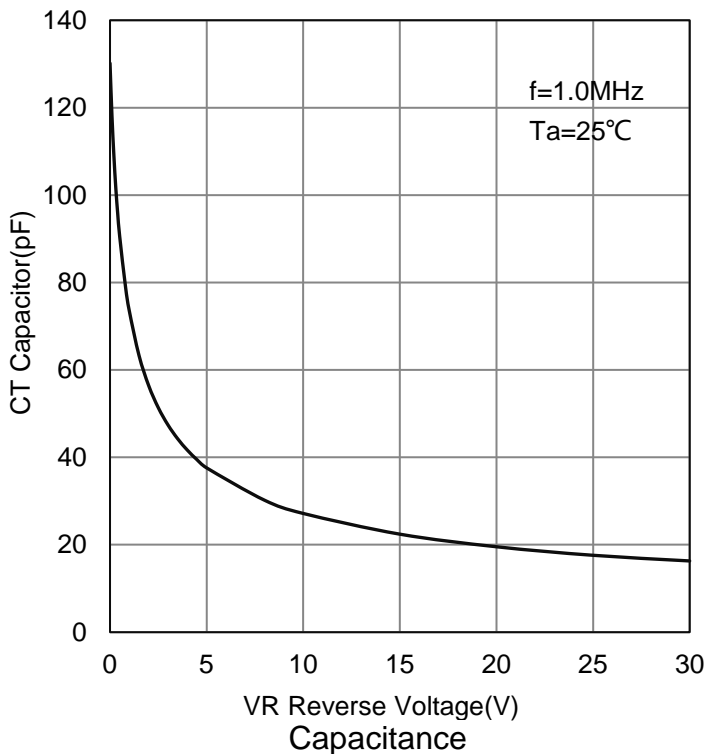
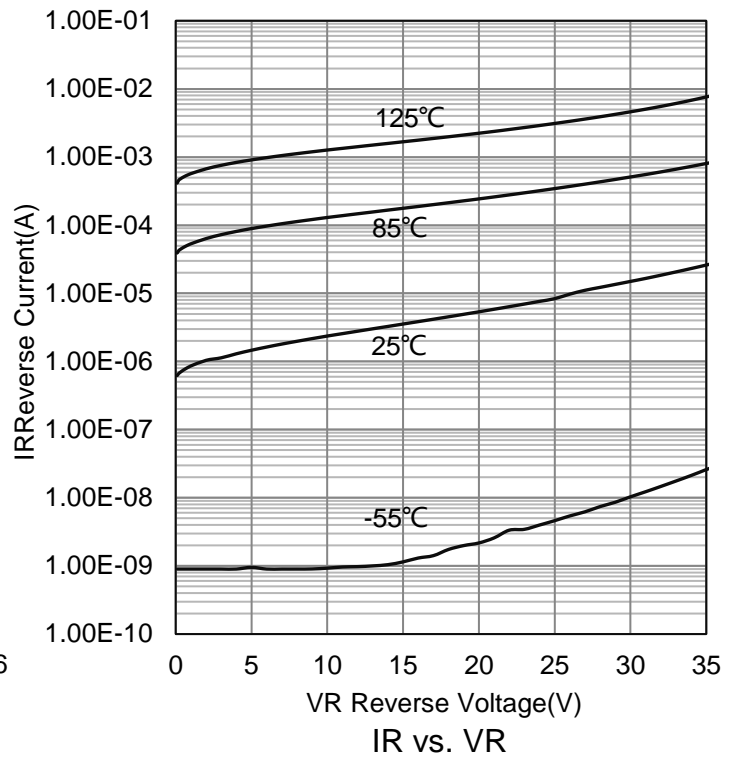
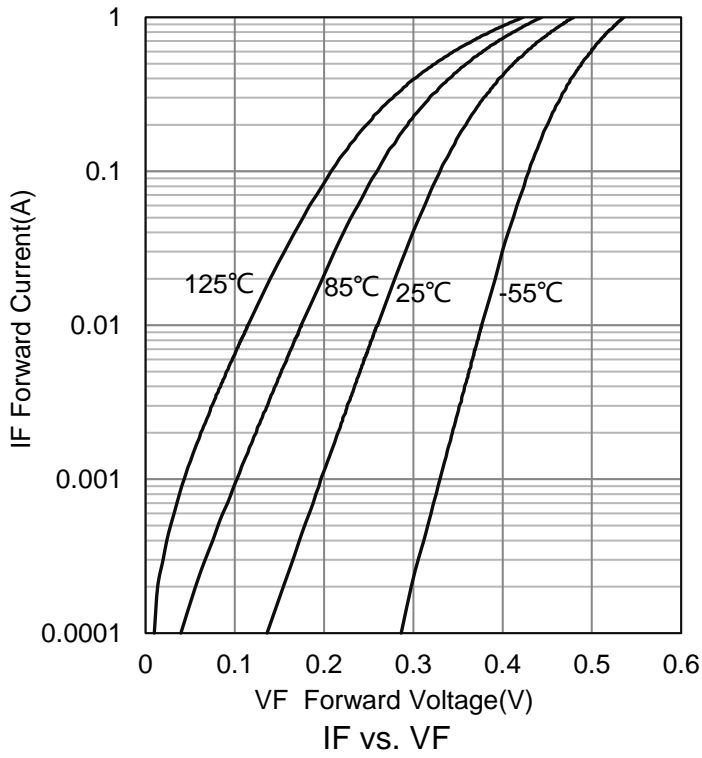
1. 1 inch square pad size (1 x 0.5 inch for each lead) on FR4 board.

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

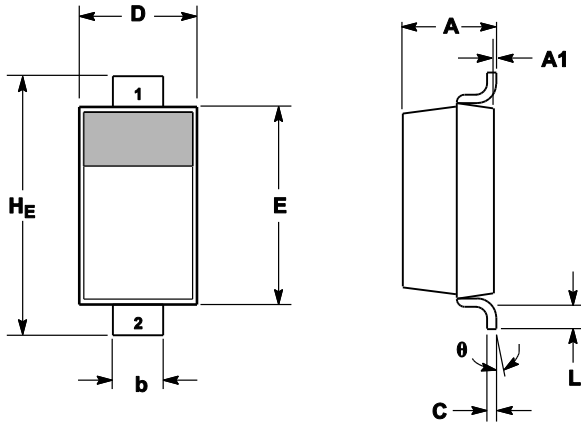
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Minimum Reverse Breakdown Voltage (IR=130μA)	V(BR)R	30	-	-	V
Maximum Instantaneous Forward Voltage (Note 2) (IF = 0.1 A, TJ = 25°C)	VF	-	-	0.375	V
(IF = 0.5 A, TJ = 25°C)		-	-	0.45	
Maximum Instantaneous Reverse Current (Note 2) (Rated DC Voltage, TC = 25°C)	IR	-	-	130	μA
(VR = 15 V, TC = 25°C)		-	-	20	

2. Pulse Test: pulse width = 300 μs, duty cycle ≤ 2%.

**6.ELECTRICAL CHARACTERISTICS CURVES**



## 7.OUTLINE AND DIMENSIONS

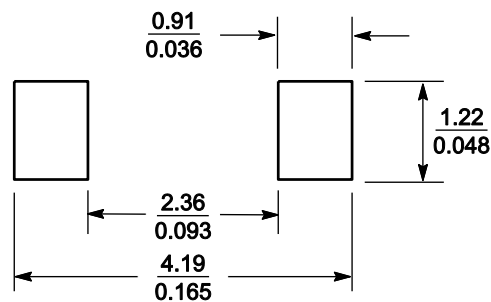


### Notes:

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)