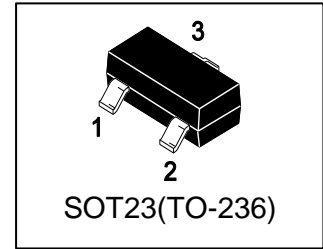


# LMUN2111LT1G

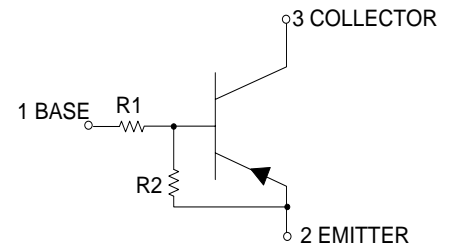
## S-LMUN2111LT1G

Bias Resistor Transistor  
PNP Silicon Surface Mount Transistor  
with Monolithic Bias Resistor Network



### 1. FEATURES

- Simplifies circuit design
- Reduces board space and component count
- 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 RESISTOR VALUES

Device	Marking	R1(K)	R2(K)	Vin(V)	Shipping
LMUN2111LT1G	A6A	10	10	-10~+40	3000/Tape&Reel
LMUN2111LT3G	A6A	10	10	-10~+40	10000/Tape&Reel

### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	-50	V
Collector–Base Voltage	VCBO	-50	V
Collector Current — Continuous	IC	-100	mA

### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	246 1.5	mW mW/°C
Thermal Resistance, Junction–to–Ambient(Note 1)	RθJA	508	°C/W
Junction and Storage temperature	TJ,Tstg	-55~+150	°C

1. FR-5 @ Minimum Pad.

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

## OFF CHARACTERISTICS

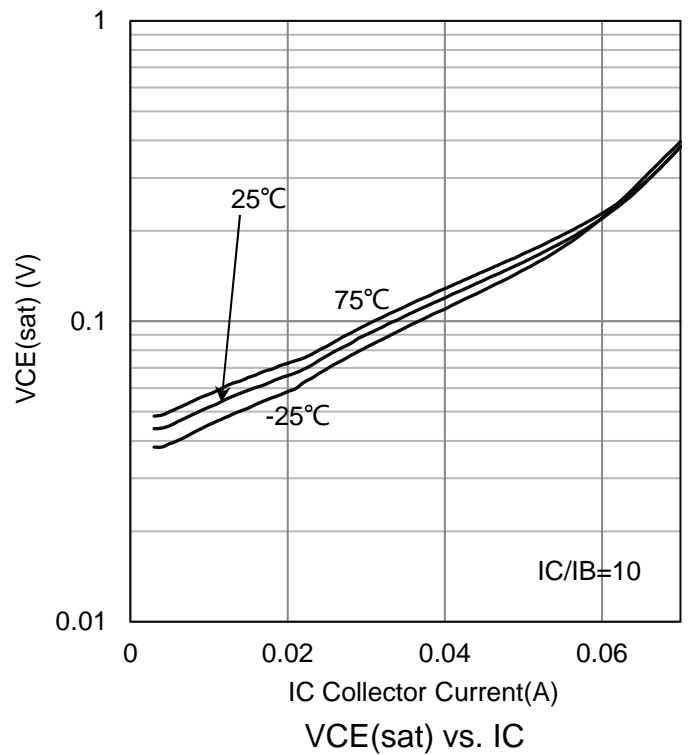
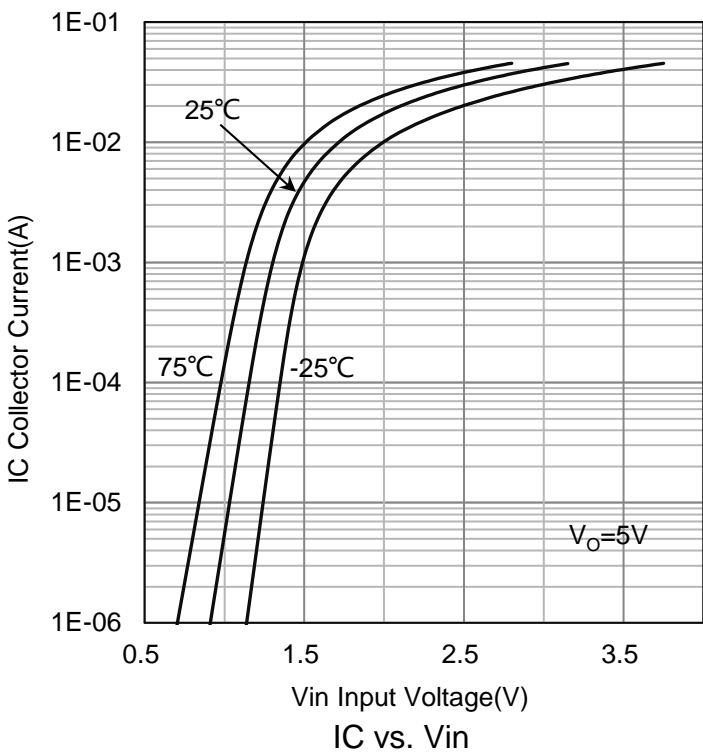
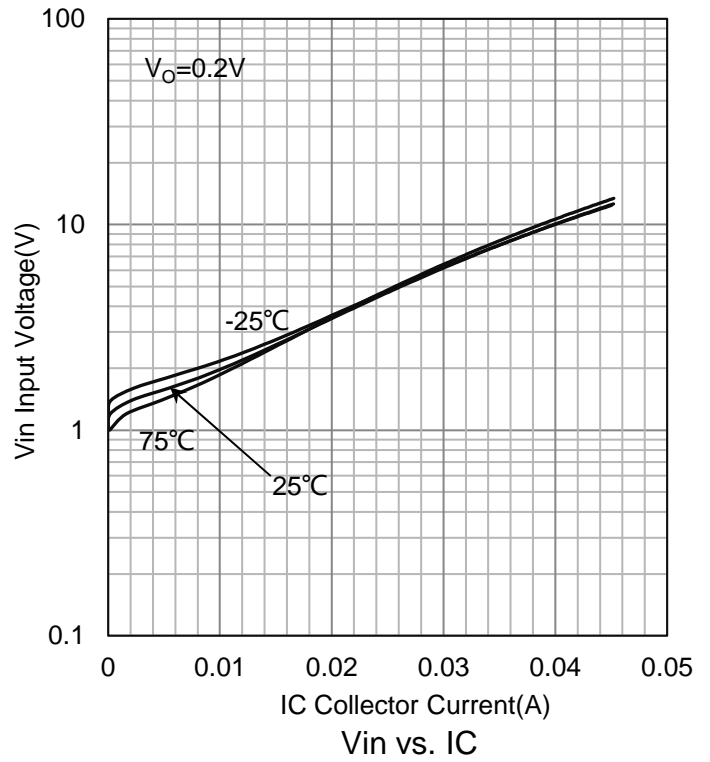
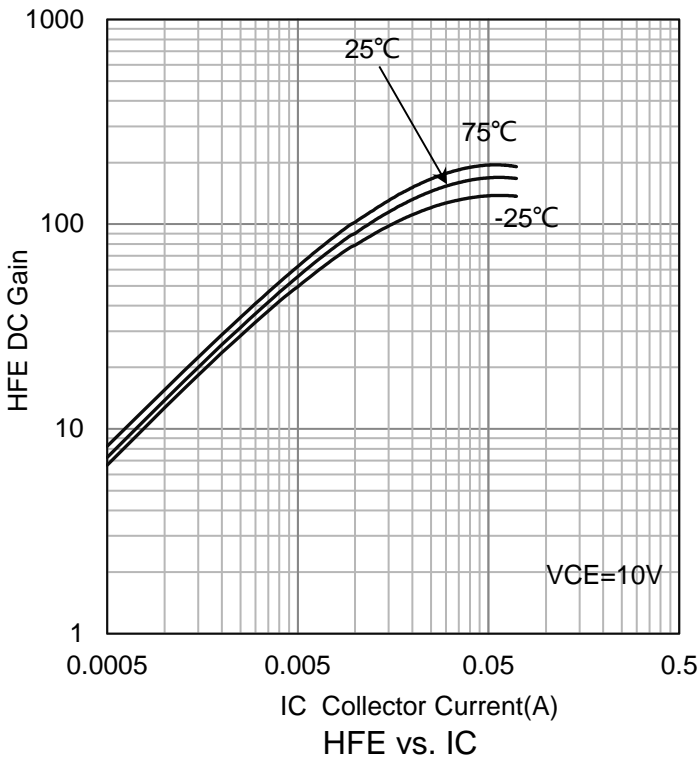
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -2.0 mA, IB = 0)	VBR(CEO)	-50	-	-	V
Collector–Base Breakdown Voltage (IC = -10 μA, IE = 0)	VBR(CBO)	-50	-	-	V
Collector-Base Cutoff Current (VCB = -50 V, IE = 0)	ICBO	-	-	-100	nA
Collector-Emitter Cutoff Current (VCE = -50 V, IB = 0)	ICEO	-	-	-500	nA
Emitter-Base Cutoff Current (VEB = -6.0 V, IC = 0)	IEBO	-	-	-0.5	mA

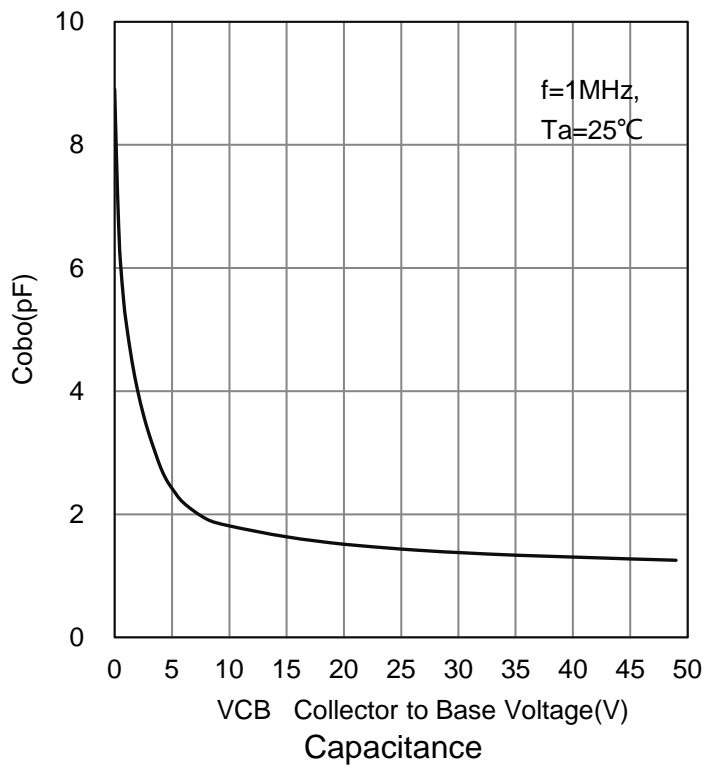
## ON CHARACTERISTICS (Note 2.)

DC Current Gain (IC = -5.0 mA, VCE = -10 V)	HFE	35	60	-	
Collector–Emitter Saturation Voltage (IC = -10 mA, IB = -0.3 mA)	VCE(sat)	-	-	-0.25	V
Output Voltage (on) (VCC = -5.0 V, VB = -2.5 V, RL = 1.0KΩ)	VOL	-	-	-0.2	V
Output Voltage (on) (VCC = -5.0 V, VB = -0.5 V, RL = 1.0KΩ)	VOH	-4.9	-	-	V
Input Resistor	R1	7	10	13	KΩ
Resistor Ratio	R1/R2	0.8	1	1.2	

2. Pulse Test: Pulse Width &lt; 300 μs, Duty Cycle &lt; 2.0%

### 6.ELECTRICAL CHARACTERISTICS CURVES

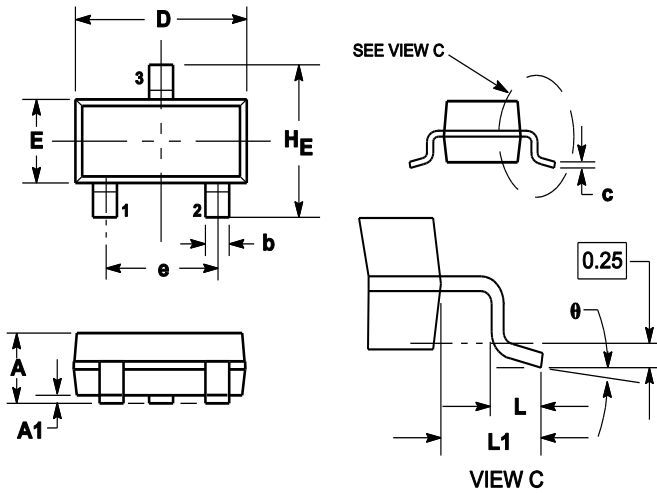


**6.ELECTRICAL CHARACTERISTICS CURVES(Con.)**

### 7. OUTLINE AND DIMENSIONS

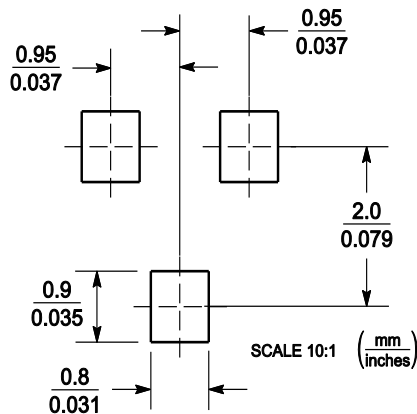
Notes:

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	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H <sub>E</sub>	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

### 8. SOLDERING FOOTPRINT



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