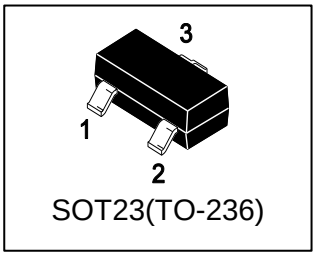
LMUN2114LT1G
S-LMUN2114LT1G

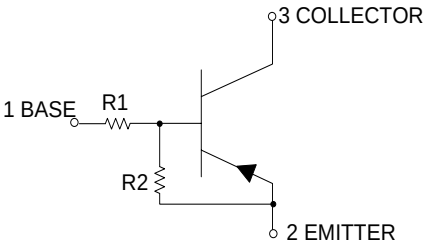
Bias Resistor Transistor
PNP Silicon Surface Mount Transistor
with Monolithic Bias Resistor Network



SOT23(TO-236)

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
LMUN2114LT1G	A6D	10	47	-40~+6	3000/Tape&Reel
LMUN2114LT3G	A6D	10	47	-40~+6	10000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25ºC)

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 = 25ºC Derate above 25ºC	PD	 246 1.5	 mW mW/ºC
Thermal Resistance, Junction–to–Ambient(Note 1)	RΘJA	508	ºC/W
Junction and Storage temperature	TJ,Tstg	−55~+150	° C

1. FR–5 @ Minimum Pad.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

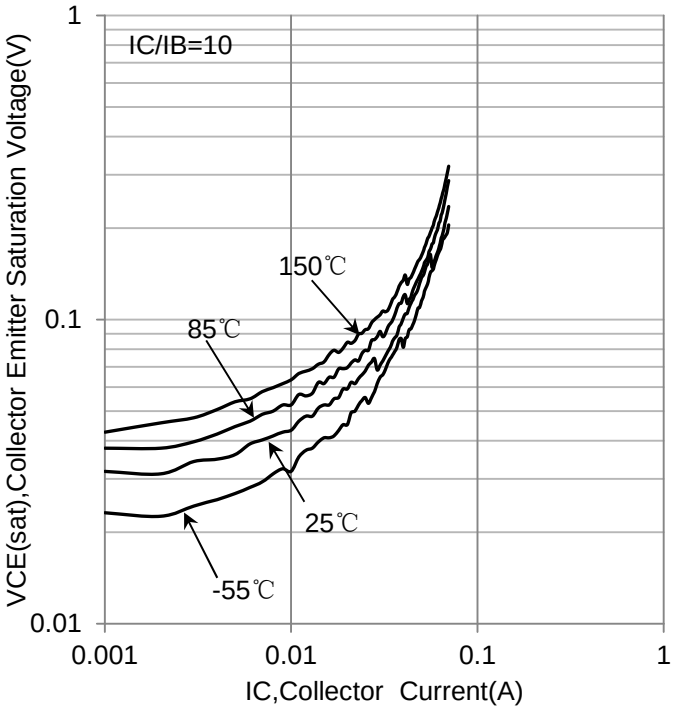
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -2.0 mA, IB = 0)	VBR(CEO)	-50	-	-	V
Collector–Base Breakdown Voltage (IC = -10 μA, IE = 0)	VBR(CBO)	-50	-	-	V
Collector-Base Cutoff Current (VCB = -50 V, IE = 0)	ICBO	-	-	-100	nA
Collector-Emitter Cutoff Current (VCE = -50 V, IB = 0)	ICEO	-	-	-500	nA
Emitter-Base Cutoff Current (VEB = -6.0 V, IC = 0)	IEBO	-	-	-0.2	mA

ON CHARACTERISTICS (Note 2.)

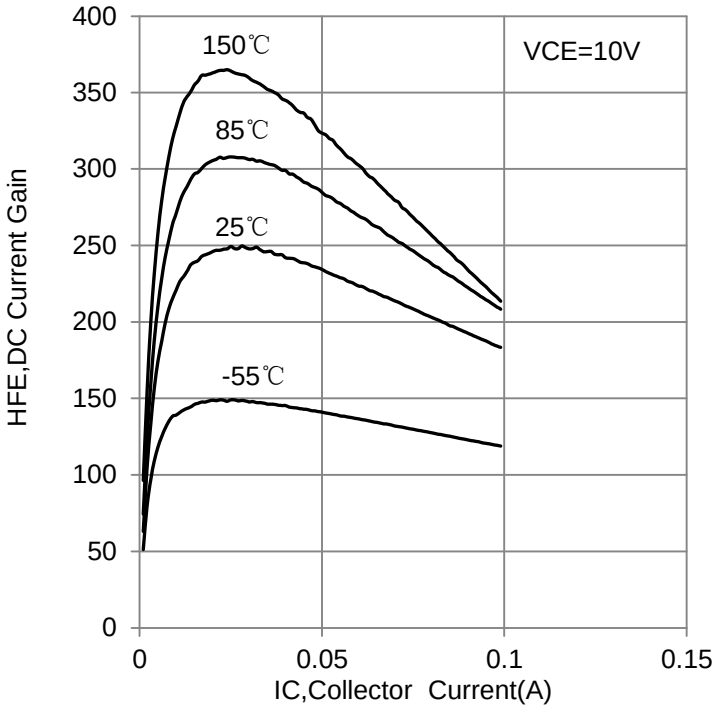
DC Current Gain (IC = -5.0 mA, VCE = -10 V)	HFE	80	140	-	
Collector–Emitter Saturation Voltage (IC = -10 mA, IB = -0.3 mA)	VCE(sat)	-	-	-0.25	V
Output Voltage (on) (VCC = -5.0 V, VB = -2.5 V, RL =1.0KΩ)	VOL	-	-	-0.2	V
Output Voltage (on) (VCC = -5.0 V, VB = -0.5 V, RL =1.0KΩ)	VOH	-4.9	-	-	V
Input Voltage(on) (VCE =-0.2V, IC =-5mA)	VIN(on)	-2	-	-	V
Input Voltage(off) (VCE =-5V, IC =-100μA)	VIN(off)	-	-	-0.5	V
Input Resistor	R1	7	10	13	KΩ
Resistor Ratio	R1/R2	0.17	0.21	0.25	

2. Pulse Test: Pulse Width < 300 μs, Duty Cycle < 2.0%

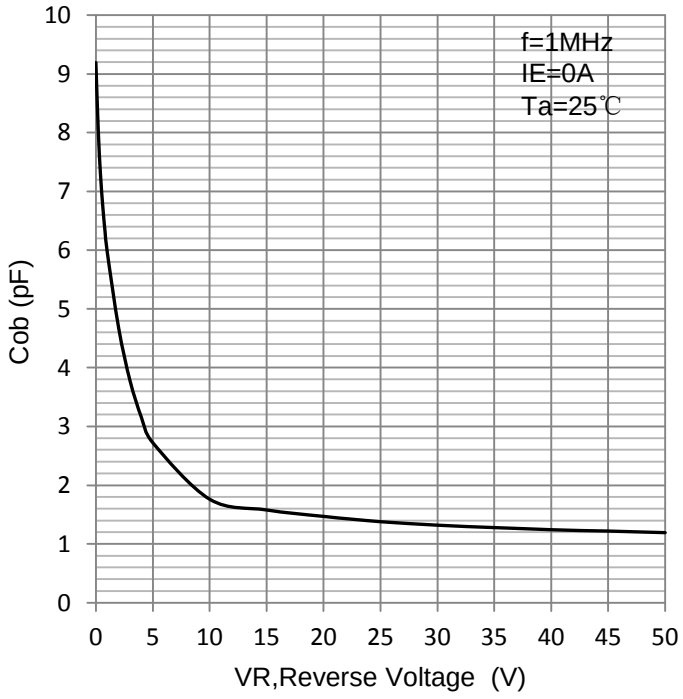
6. ELECTRICAL CHARACTERISTICS CURVES



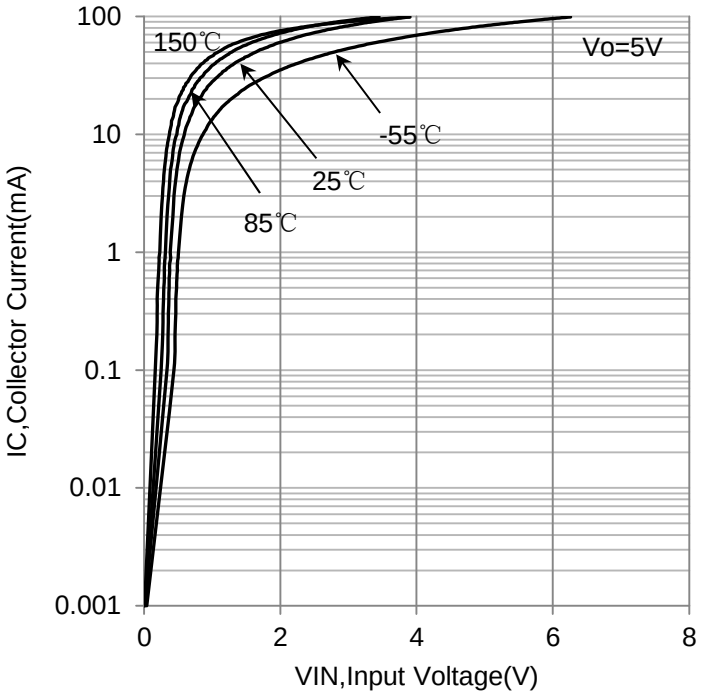
VCE(sat) vs. IC



DC Current Gain

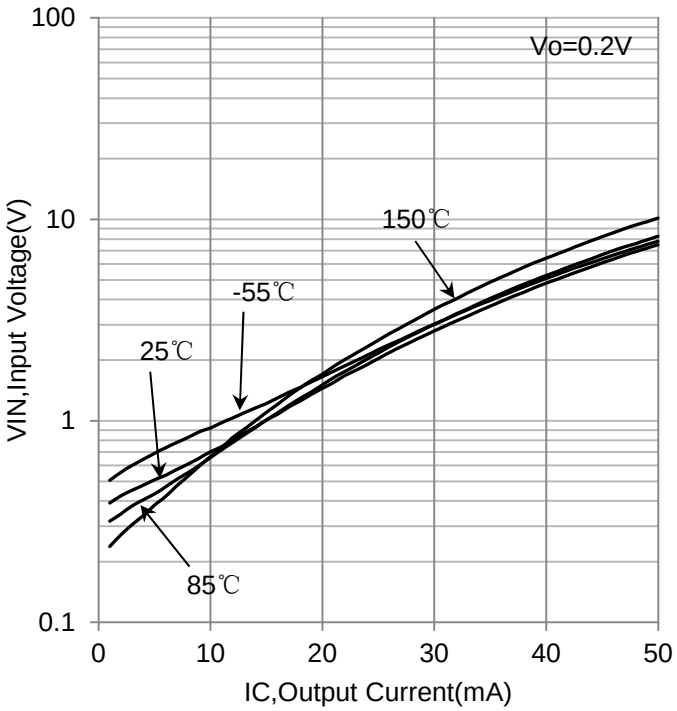


Output Capacitance



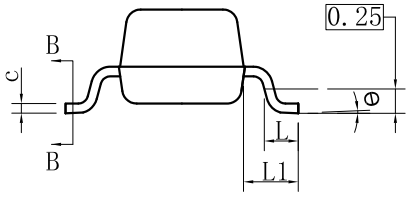
IC vs. VIN

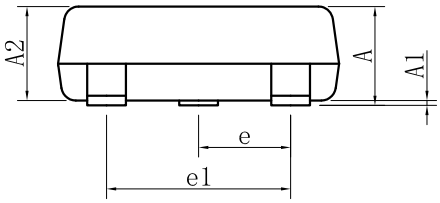
6. ELECTRICAL CHARACTERISTICS CURVES(Con.)

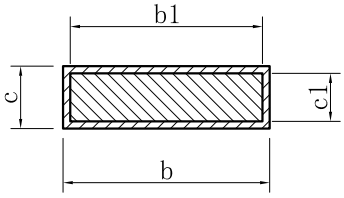


VIN vs. IC

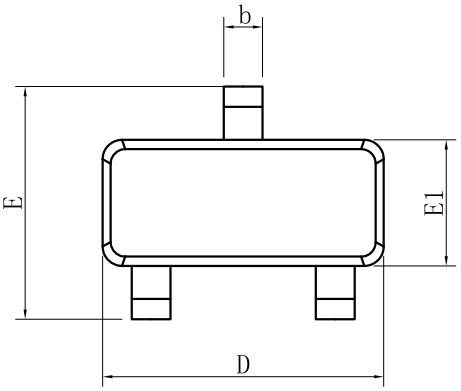
7.OUTLINE AND DIMENSIONS







SECTION B-B

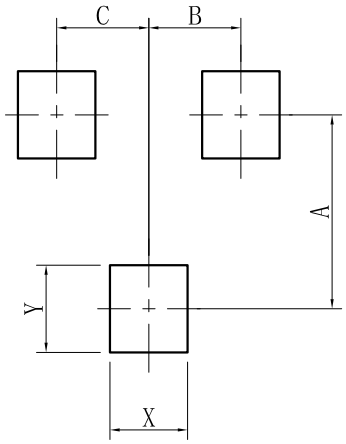


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um

8.SOLDERING FOOTPRINT



SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.

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