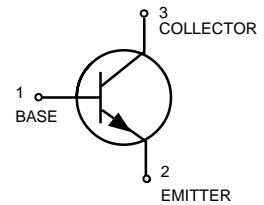
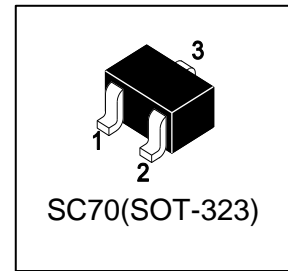


# L2SC4081RT1G

## S-L2SC4081RT1G

General Purpose Transistors NPN Silicon



### 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.

### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
L2SC4081RT1G	BR	3000/Tape&Reel
L2SC4081RT3G	BR	10000/Tape&Reel

### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	50	V
Collector–Base Voltage	VCBO	60	V
Emitter–Base Voltage	VEBO	7	V
Collector Current — Continuous	IC	150	mA

### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation,	PD	278	mW
Thermal Resistance, Junction–to–Ambient(Note 1)	RθJA	450	°C/W
Junction and Storage temperature	TJ,Tstg	-55~+150	°C

1.30.0mm×25.0mm×1.6mm(FR4), Copper foil thickness 35μm;

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

### OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = 1 mA, IB = 0)	VBR(CEO)	50	-	-	V
Collector–Base Breakdown Voltage (IC = 50 μA, IE= 0)	VBR(CBO)	60	-	-	V
Emitter–Base Breakdown Voltage (IE = 50 μA, IC = 0)	VBR(EBO)	7	-	-	V
Collector Cutoff Current (VCB = 60 V)	ICBO	-	-	100	nA
Emitter cutoff current (VEB = 7 V)	IEBO	-	-	100	nA
Collector Cutoff Current (VCE=45V)	ICEO	-	-	10	μA

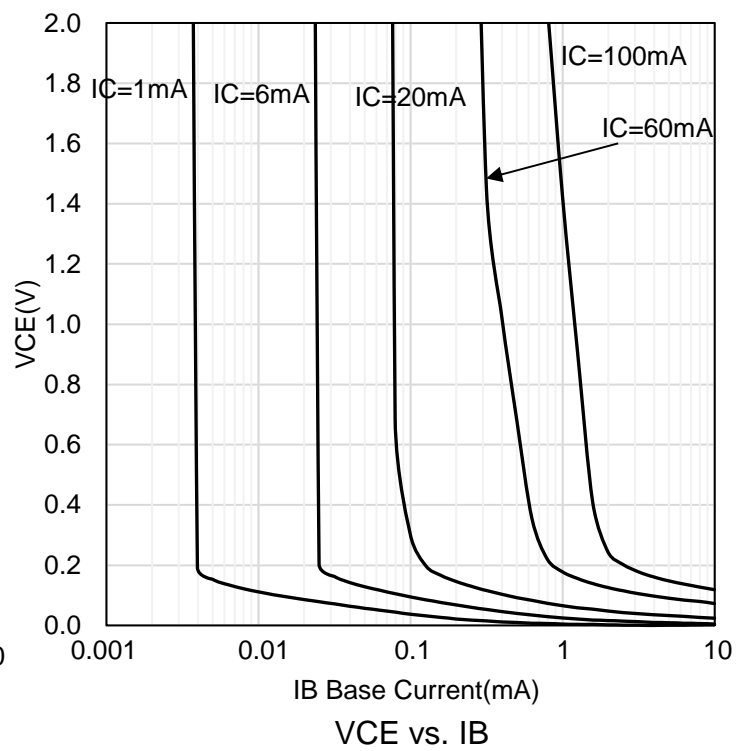
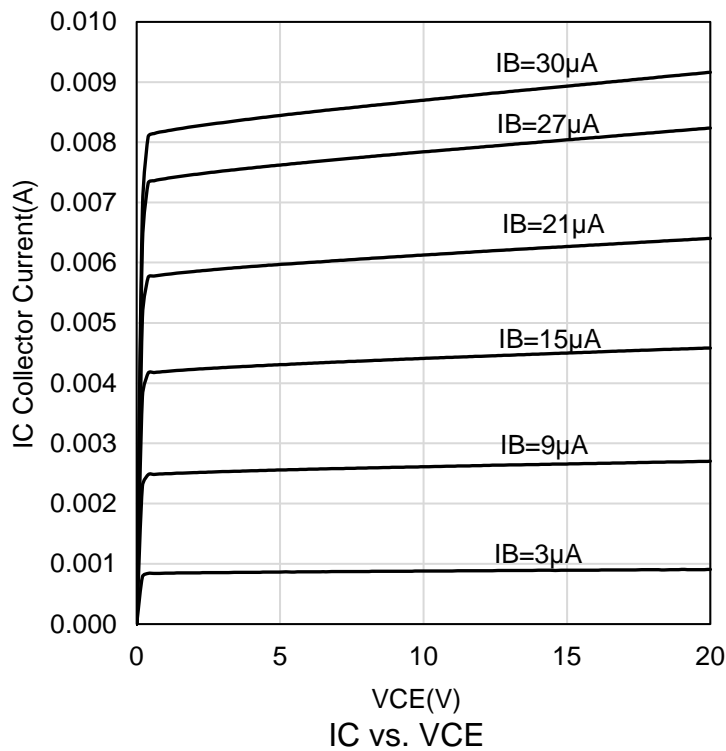
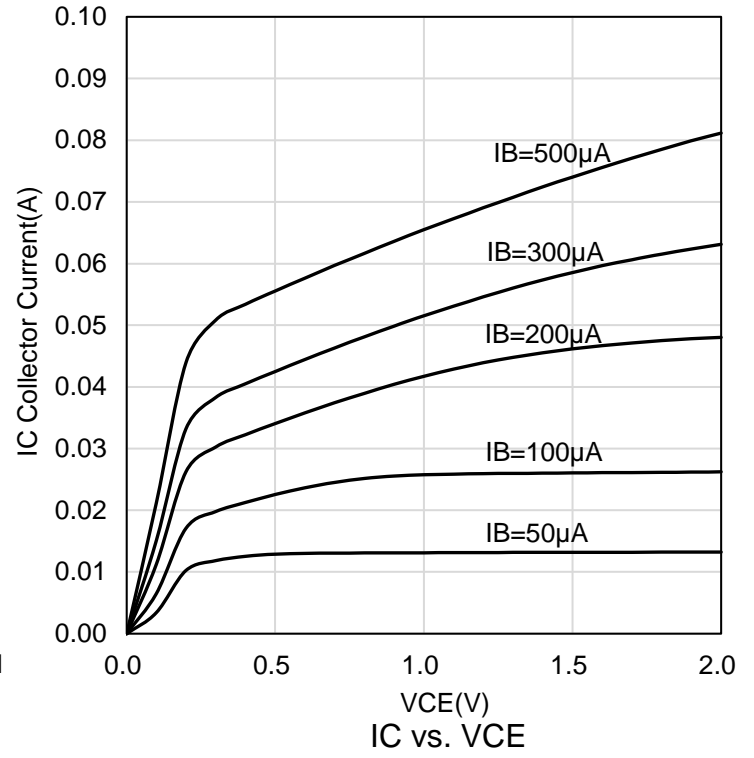
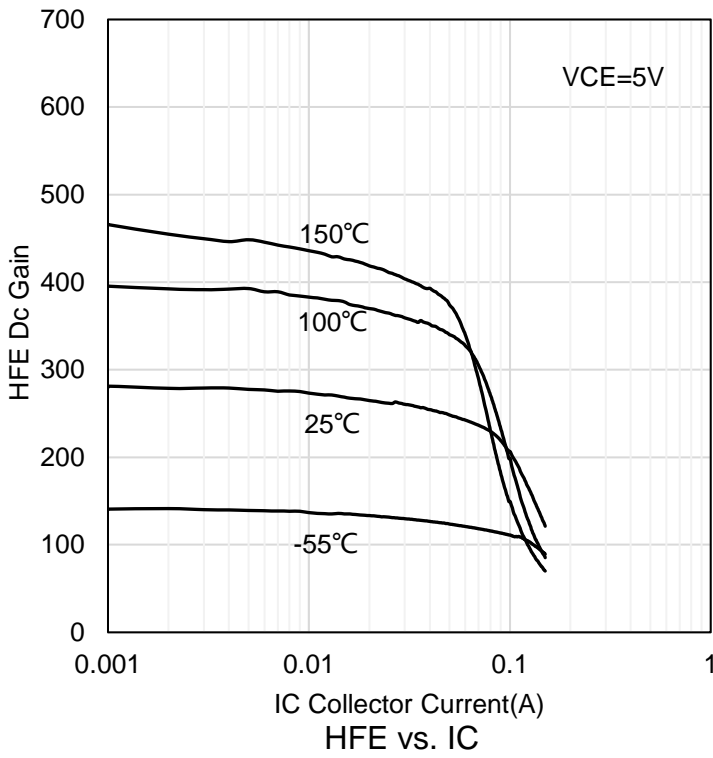
### ON CHARACTERISTICS

DC Current Gain (IC = 1 mA, VCE = 6.0 V)	HFE	180	-	390	
Collector–Emitter Saturation Voltage (IC = 50 mA, IB = 5 mA)	VCE(sat)	-	-	0.4	V
Base–Emitter Saturation Voltage (IC = 100 mA, IB = 10 mA)	VBE(sat)	-	-	1.1	V

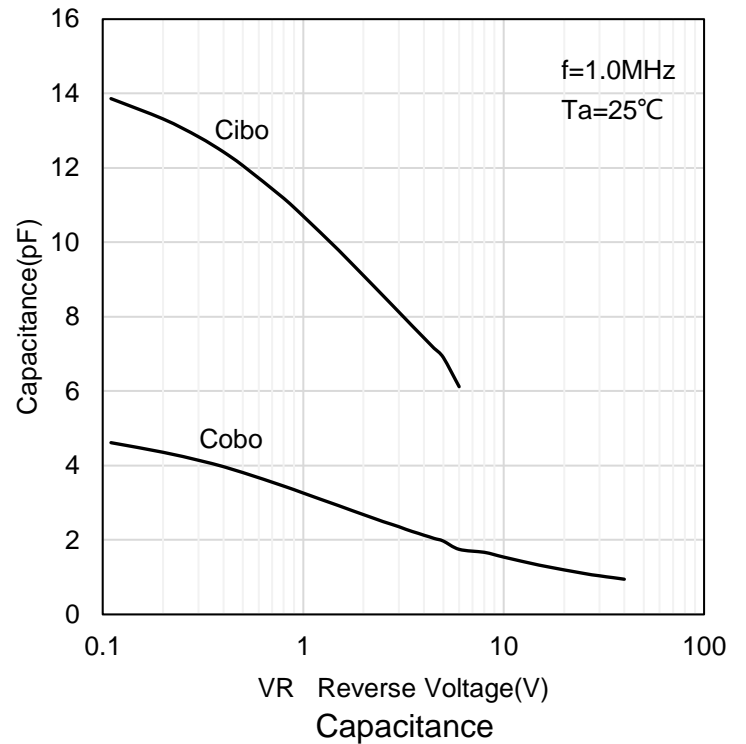
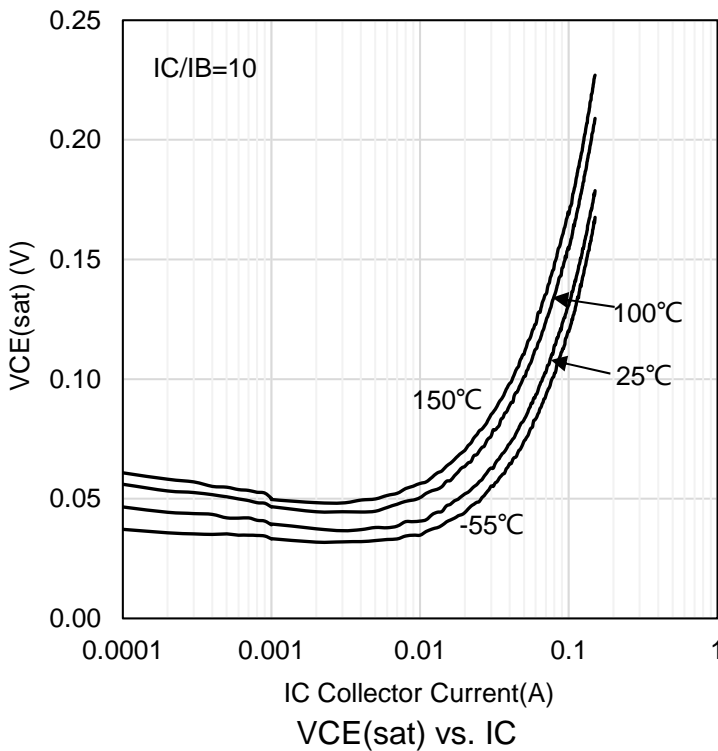
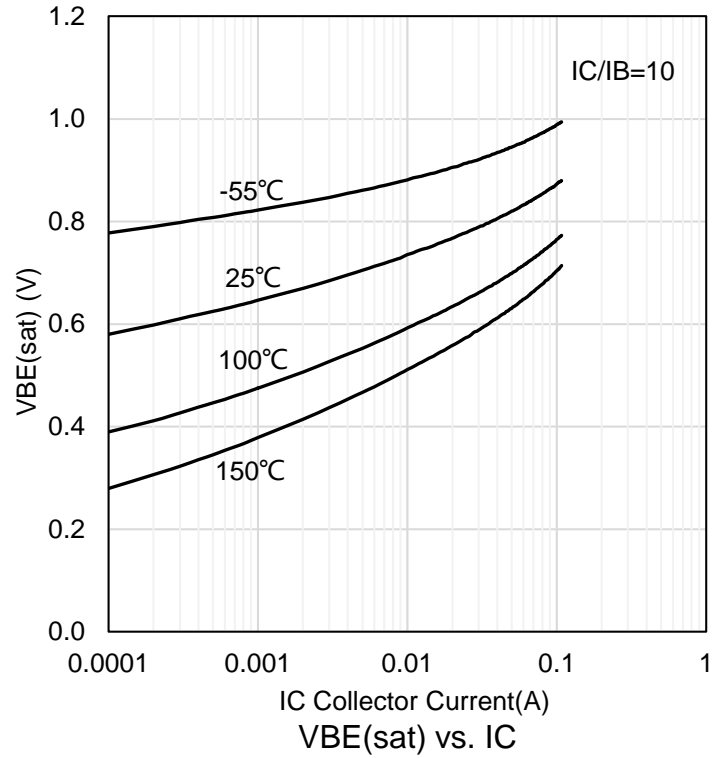
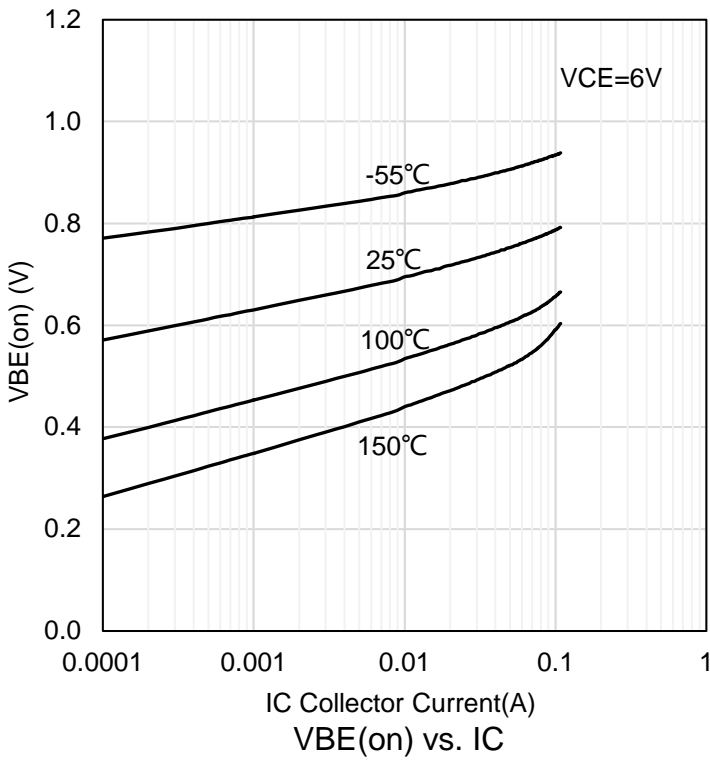
### SMALL–SIGNAL CHARACTERISTICS

Transition frequency (VCE = 12 V, IE = -2mA, f =30MHz)	fT	-	180	-	MHz
Output Capacitance (VCB = 12 V, IE = 0A, f = 1.0 MHz)	Cob	-	2	3.5	pF

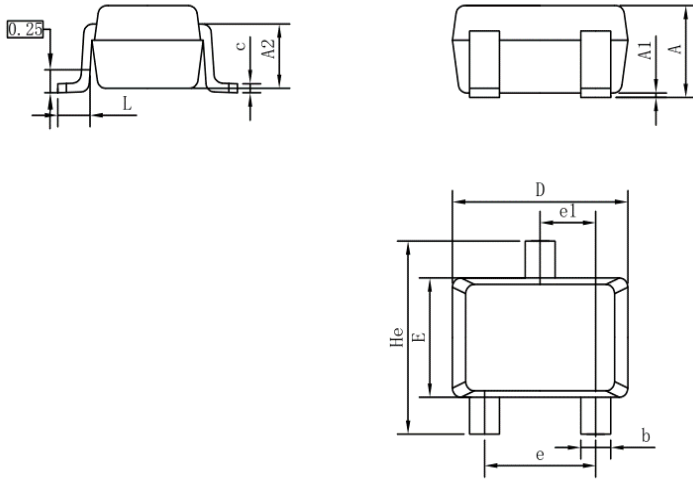
### 6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)

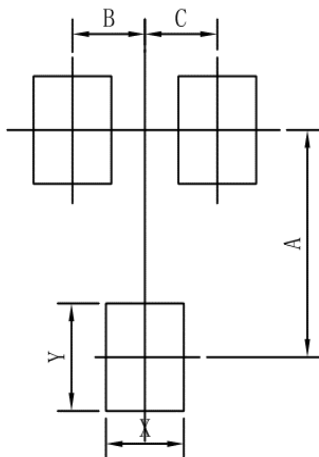


### 7.OUTLINE AND DIMENSIONS



SC70			
DIM	MIN	NOR	MAX
A	0.80	0.95	1.00
A1	0.00	0.05	0.10
A2	0.7 REF		
b	0.30	0.35	0.40
c	0.10	0.15	0.25
D	1.80	2.05	2.20
E	1.15	1.30	1.35
e	1.20	1.30	1.40
e1	0.65 BSC		
L	0.20	0.35	0.56
He	2.00	2.10	2.40
ALL Dimension in mm			

### 8.SOLDERING FOOTPRINT



SC70	
DIM	MIN
A	1.90
B	0.65
C	0.65
X	0.70
Y	0.90

## **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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