

# High-Frequency Amplifier Transistor

- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

## Ordering information

Device	Marking	Shipping
L2SC4083NT1G S-L2SC4083NT1G	N01	3000/Tape&Reel
L2SC4083NT3G S-L2SC4083NT3G	N01	10000/Tape&Reel
L2SC4083PT1G S-L2SC4083PT1G	H01	3000/Tape&Reel
L2SC4083PT3G S-L2SC4083PT3G	H01	10000/Tape&Reel
L2SC4083QT1G S-L2SC4083QT1G	P01	3000/Tape&Reel
L2SC4083QT3G S-L2SC4083QT3G	P01	10000/Tape&Reel

## Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	20	V
Collector-emitter voltage	$V_{CEO}$	11	V
Emitter-base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	0.2	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	- 55~+150	°C

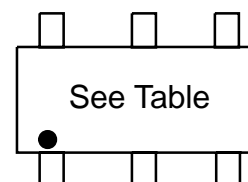
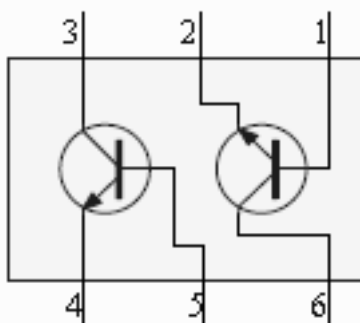
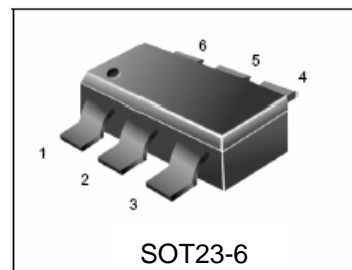
## Electrical characteristics (Ta=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	20			V	$I_C = 10\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	11			V	$I_C = 1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	3			V	$I_E = 10\mu A$
Collector cutoff current	$I_{CBO}$			0.5	$\mu A$	$V_{CB} = 10V$
Emitter cutoff current	$I_{EBO}$			0.5	$\mu A$	$V_{EB} = 2V$
Collector-emitter saturation voltage	$V_{CE(sat)}$			0.5	V	$I_C/I_B = 10mA/5mA$
DC current transfer ratio	$h_{FE}$	56		270		$V_{CE}/I_C = 10V/5mA$
Transition frequency	$f_T$	1.4	3.2		GHz	$V_{CB} = 10V, I_C = 10mA, f = 500MHz$
Output capacitance	$C_{ob}$		0.8	1.5	pF	$V_{CB} = 10V, I_E = 0A, f = 1MHz$
Collector-base time constant	$rb_b' \cdot C_c$		4	12	ps	$V_{CB} = 10V, I_C = 10mA, f = 31.8MHz$
Noise factor	NF		3.5		dB	$V_{CE} = 6V, I_C = 2mA, f = 500MHz, R_g = 50\Omega$

## CLASSIFICATION OF $h_{FE}$

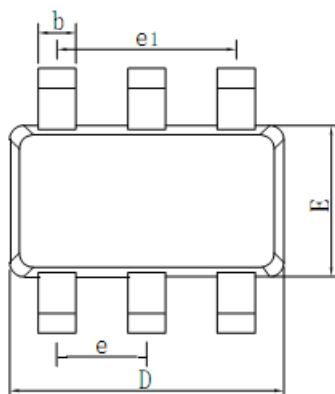
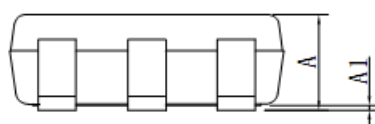
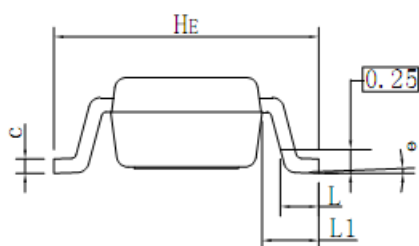
Rank	N	P	Q
Range	56-120	82-180	120-270

**L2SC4083NT1G**  
Series  
**S-L2SC4083NT1G**  
Series



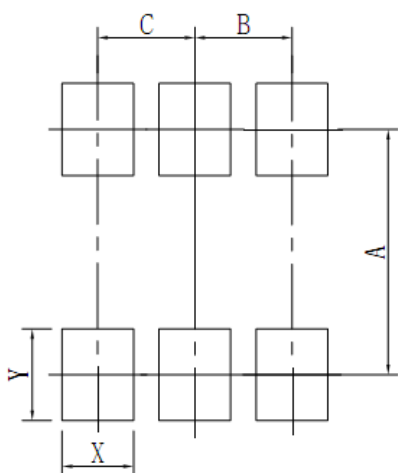
### OUTLINE AND DIMENSIONS

SOT23-6



SOT23-6			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.25	0.40	0.50
c	0.10	0.17	0.26
D	2.80	2.90	3.10
E	1.30	1.60	1.70
e	0.85	0.95	1.05
e1	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.50	2.80	3.00
θ	0°	-	10°

### SOLDERING FOOTPRINT



SOT23-6	
DIM	(mm)
X	0.70
Y	0.90
A	2.40
B	0.95
C	0.95

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)