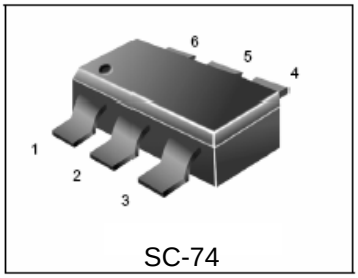
High-Frequency Amplifier Transistor

L2SC3837T1G

- **Features**

1.High transition frequency.(Typ.f_T=1.5GHz)
2.Small rbb`Cc and high gain.(Typ.6ps)
3.Small NF.
4.We declare that the material of product compliance with RoHS requirements.



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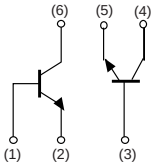

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	18	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

DEVICE MARKING

L2SC3837T1G=H15

- ORDERING INFORMATION

Device	Package	Shipping
L2SC3837T1G	SC-74	3000/Tape & Reel
L2SC3837T3G	SC-74	10000/Tape & Reel

ELECTRICAL CHARACTERISTICS(T_A=25°C)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	30	–	–	V	I_C=10μA
Collector-emitter breakdown voltage	BV_{CEO}	18	–	–	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	3	–	–	V	I_E=10μA
Collector cutoff current	I_{CBO}	–	–	0.5	μA	V_{CB}=10V
Emitter cutoff current	I_{EBO}	–	–	0.5	μA	V_{EB}=2V
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	0.5	V	I_C/I_B=20mA/4mA
DC current transfer ratio	h_{FE}	56	–	180	–	V_{CE}/I_C=10V/10mA
Transition frequency	f_T	600	1500	–	MHz	V_{CB}=10V, I_C=10mA, f=200MHz
Output capacitance	Cob	–	0.9	1.5	pF	V_{CB}=10V, I_E=0A, f=1MHz
Collector-base time constant	rbb`Cc	–	6	13	ps	V_{CB}=10V, I_C=10mA, f=31.8MHz
Noise factor	NF	–	4.5	–	dB	V_{CE}=12V, I_C=2mA, f=200MHz,Rg=50Ω

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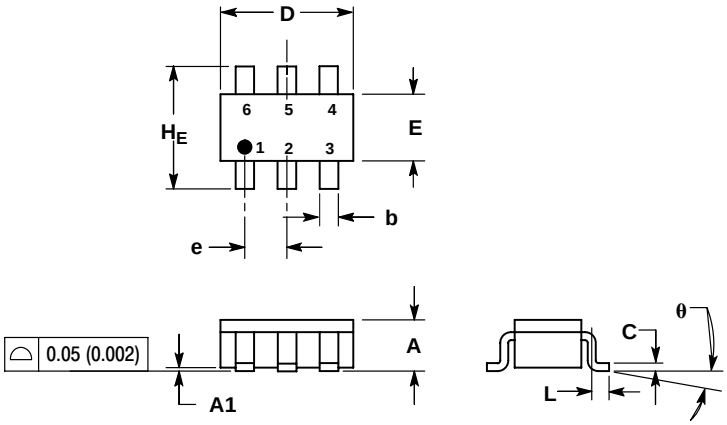

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.25	0.37	0.50	0.010	0.015	0.020
c	0.10	0.18	0.26	0.004	0.007	0.010
D	2.90	3.00	3.10	0.114	0.118	0.122
E	1.30	1.50	1.70	0.051	0.059	0.067
e	0.85	0.95	1.05	0.034	0.037	0.041
L	0.20	0.40	0.60	0.008	0.016	0.024
H_E	2.50	2.75	3.00	0.099	0.108	0.118
θ	0°	–	10°	0°	–	10°