

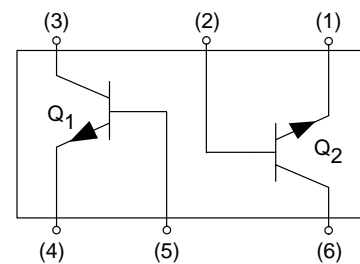
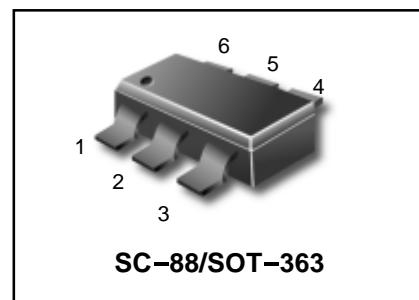
High-Frequency Amplifier Transistor

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● Features

- 1.High transition frequency.($f_T=1.5\text{GHz}$)
- 2.Low output capacitance.($C_{ob}=0.95\text{pF}$)

L2SC3837DW1T1



MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ 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	150(TOTAL)	mW*
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

* 120mW per element must not be exceeded.

DEVICE MARKING

L2SC3837DW1T1=8P

ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$)

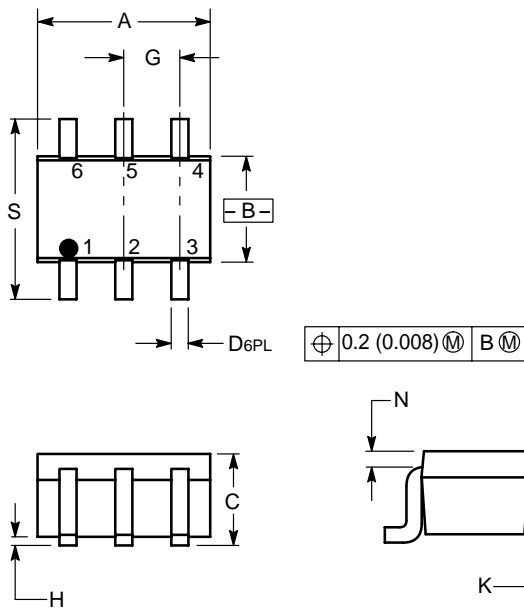
Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	30	-	-	V	$I_C=10\mu\text{A}$
Collector-emitter breakdown voltage	BV_{CEO}	18	-	-	V	$I_C=1\text{mA}$
Emitter-base breakdown voltage	BV_{EBO}	3	-	-	V	$I_E=10\mu\text{A}$
Collector cutoff current	I_{CBO}	-	-	0.5	μA	$V_{CB}=10\text{V}$
Emitter cutoff current	I_{EBO}	-	-	0.5	μA	$V_{EB}=2\text{V}$
DC current transfer ratio	h_{FE}	27	-	270	-	$V_{CE}/I_C=10\text{V}/10\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C/I_B=20\text{mA}/4\text{mA}$
h_{FE} pairing	h_{FE1}/h_{FE2}	0.5	1	2	-	$V_{CE}/I_C=10\text{V}/10\text{mA}$
Transition frequency	fT	600	1500	-	MHz	$V_{CE}/I_C=10\text{V}/10\text{mA}, f=200\text{MHz}^*$
Output capacitance	Cob	-	0.95	1.6	pF	$V_{CB}/f=10\text{V}/1\text{MHz}, I_E=0\text{A}$

*Transition frequency of the device.

L2SC3837DW1T1

SC-88/SOT-363

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NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20

- PIN 1. EMITTER 2
- 2. BASE 2
- 3. COLLECTOR 1
- 4. EMITTER 1
- 5. BASE 1
- 6. COLLECTOR 2

