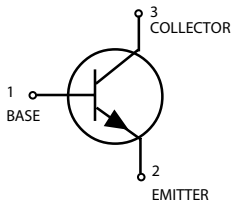
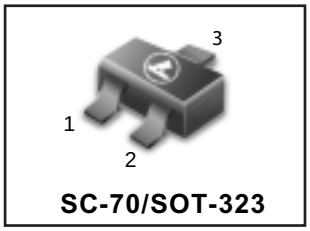
High-Frequency Amplifier Transistor

L2SC4083PWT1





SC-70/SOT-323

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

Driver Marking

L2SC4083PWT1=1D

Electrical characteristics (Ta=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	20			V	I_C = 10μA
Collector-emitter breakdown voltage	BV_{CEO}	11			V	I_C = 1mA
Emitter-base breakdown voltage	BV_{EBO}	3			V	I_E = 10μA
Collector cutoff current	I_{CBO}			0.5	uA	V_{CB} = 10V
Emitter cutoff current	I_{EBO}			0.5	uA	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}	82		180		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	Cob		0.8	1.5	pF	V_{CB} = 10V , I_E = 0A , f = 1MHz
Collector-base time constant	rbb'·Cc		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 , Rg = 50Ω

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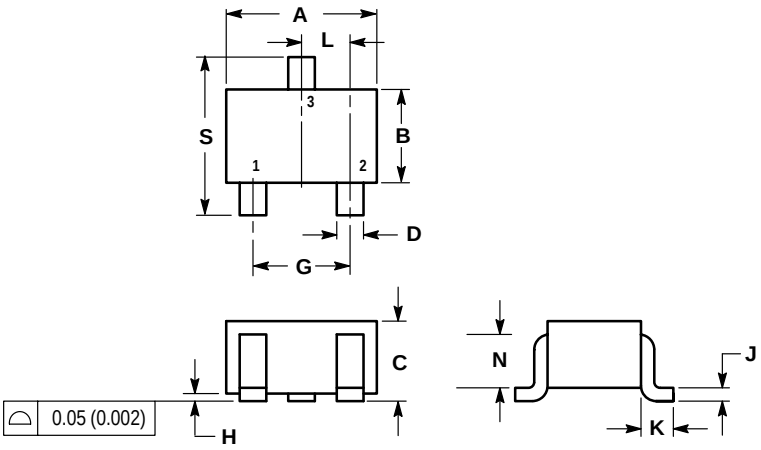

NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

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	0.032	0.040	0.80	1.00
D	0.012	0.016	0.30	0.40
G	0.047	0.055	1.20	1.40
H	0.000	0.004	0.00	0.10
J	0.004	0.010	0.10	0.25
K	0.017 REF		0.425 REF	
L	0.026 BSC		0.650 BSC	
N	0.028 REF		0.700 REF	
S	0.079	0.095	2.00	2.40

PIN 1. BASE
2. EMITTER
3. COLLECTOR