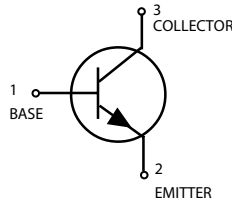
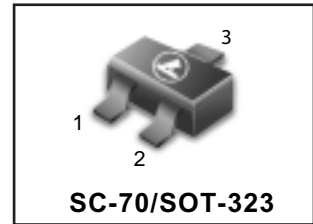


# High-Frequency Amplifier Transistor


**L2SC4083NWT1**


### 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

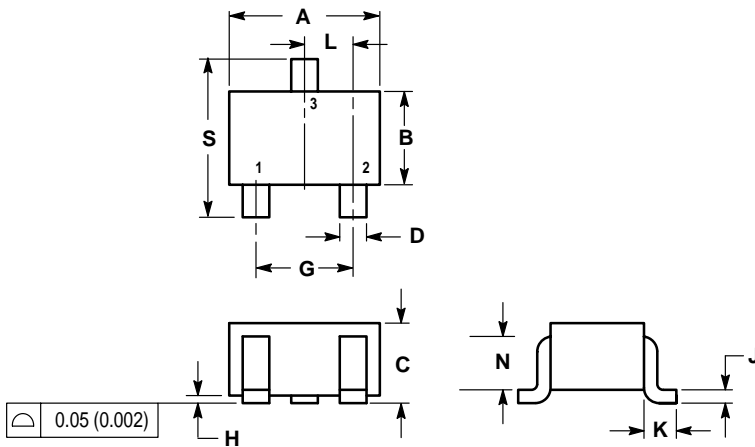
L2SC4083NWT1=4N

### 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	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	$h_{FE}$	56		120		$V_{CE}/I_C = 10V/5mA$
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	$r_{bb'} \cdot C_c$		4	12	ps	$V_{CB} = 10V, I_C = 10mA, f = 31.8MHz$
Noise factor	NF		3.5		dB	$V_{CE} = 6V, I_C = 2mA, f = 500MHz, R_g = 50\Omega$

**L2SC4083NWT1**
**SC-70 / SOT-323**
**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

