isc Silicon NPN RF Transistor 2SC4901YK

DESCRIPTION

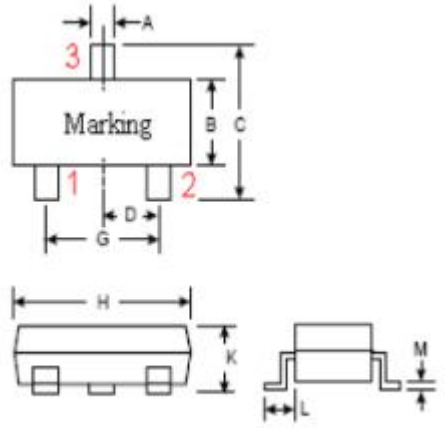
- High gain bandwidth product
  fT = 9 GHz (Typ) @ VCE=5V，IC=20mA，f=0.9GHz
- High gain, low noise figure
  $|S_{21e}|^2$ = 13.5 dB @ VCE=5V，IC=20mA，f=0.9GHz,
  NF = 1.6dB(Typ) @ VCE=5V，IC=5mA， f=0.9GHz
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- UHF / VHF wide band amplifier

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	15	V
V_{CEO}	Collector-Emitter Voltage	9	V
V_{EBO}	Emitter-Base voltage	1.5	V
I_C	Collector Current-Continuous	50	mA
P_C	Collector Power Dissipation @ T_C=25℃	100	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



SOT-323 1: Base 2: Emitter 3: Collector

DIM	MIN	MAX
A	0.200	0.400
B	1.150	1.350
C	2.150	2.450
D	0.650	
G	1.200	1.400
H	2.000	2.200
K	0.900	1.100
L	0.525	
M	0.080	0.150

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CBO}	Collector-Base Breakdown Voltage	I_C= 1uA ; I_E= 0	15			V
I_{CBO}	Collector Cutoff Current	V_{CB}= 10V ; I_E= 0			0.1	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 1V; I_C= 0			0.1	uA
h_{FE}	DC Current Gain	I_C= 20mA ; V_{CE}= 5V	60	150	300	
C_{OB}	Output Capacitance	V_{CB}=10V,I_E=0mA, f=1MHz			1	pF
f_T	Current-Gain—Bandwidth Product	V_{CE}=5V，I_C=20mA	7	9		GHz
$\|S_{21e}\|^2$	Power gain	V_{CE}=5V,I_C=5mA, f=0.9GHz		13.3		dB
		V_{CE}=5V,I_C=20mA,f=0.9GHz		13.5		dB
NF	Noise figure	V_{CE}=5V, I_C=5mA, f=0.9GHz		1.6	2.5	dB

◆ **h_{FE}Classifications**

A	B	C	D	E
60-100	90-140	130-180	170-250	250-300

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