

isc Silicon NPN RF Transistor
2SC3121
DESCRIPTION

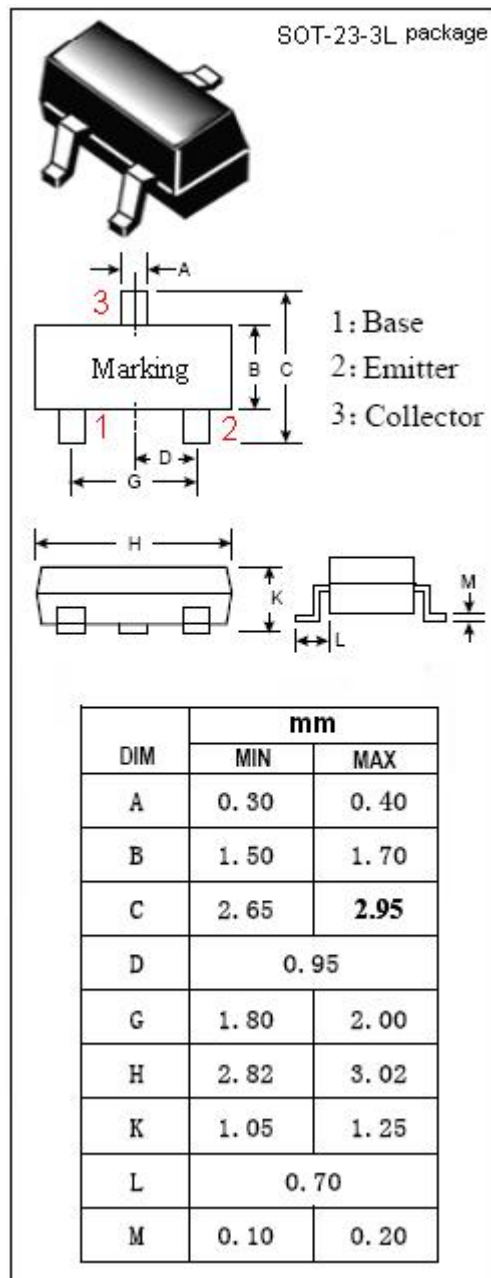
- High Gain Bandwidth Product
 $f_T = 1500 \text{ MHz TYP.}$
- Excellent Linearity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- TV tuner, UHF oscillator applications.
- TV tuner, UHF converter applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current-Continuous	50	mA
I_B	Base Current-Continuous	25	mA
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	0.15	W
T_J	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~125	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA ; I _B = 0	15			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 15V; I _E = 0			0.1	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 3V; I _C = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C = 8mA ; V _{CE} = 3V	60		320	
f _T	Current-Gain—Bandwidth Product	I _C = 8mA ; V _{CE} = 10V	1100	1500		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V;f= 1.0MHz		0.9	1.3	pF
r _{bb'} · C _C	Base Time Constant	I _C = 8mA ; V _{CB} = 10V;f= 30MHz		7	12	ps

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