

isc Silicon NPN RF Transistor

2SC3121

DESCRIPTION

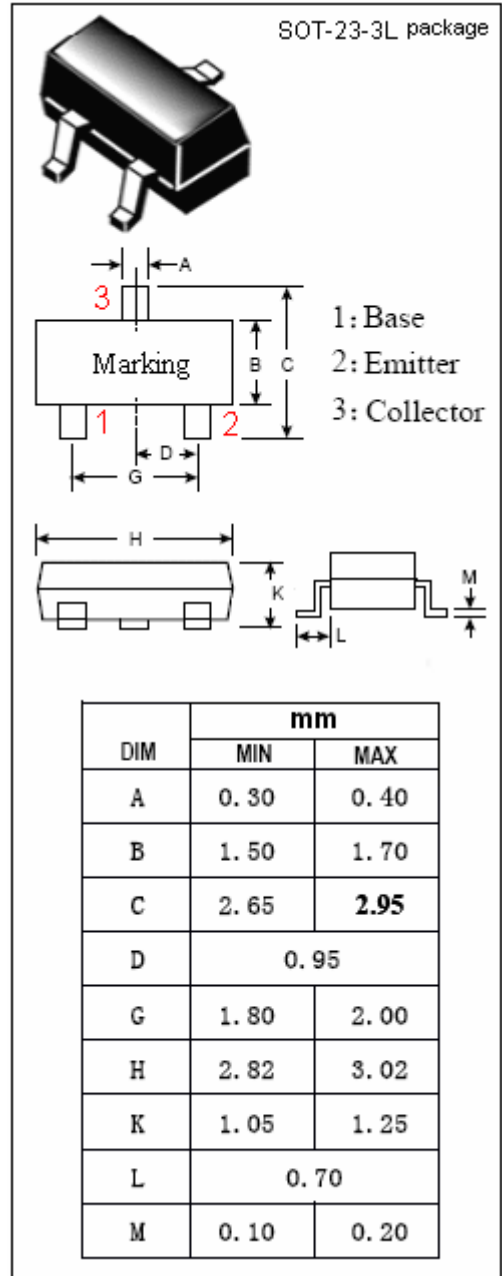
- High Gain Bandwidth Product
 $f_T = 1500 \text{ MHz TYP.}$
- Excellent Linearity

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	$^\circ\text{C}$

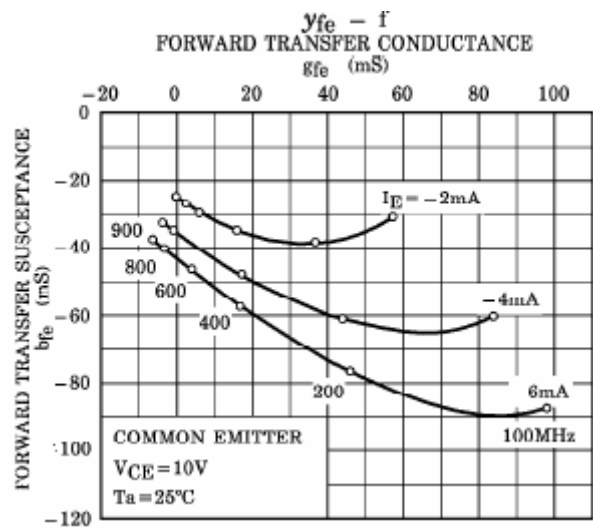
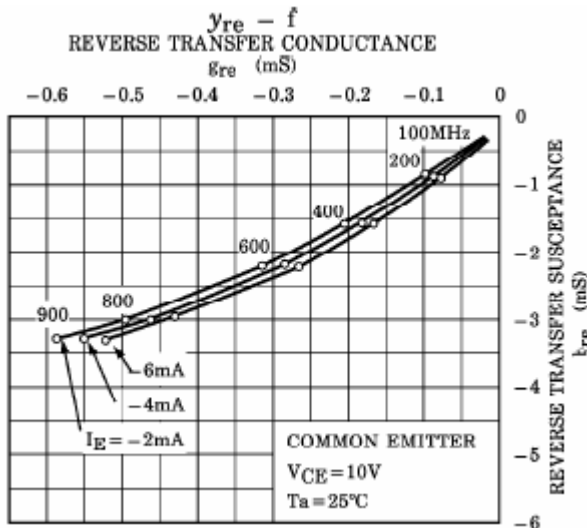
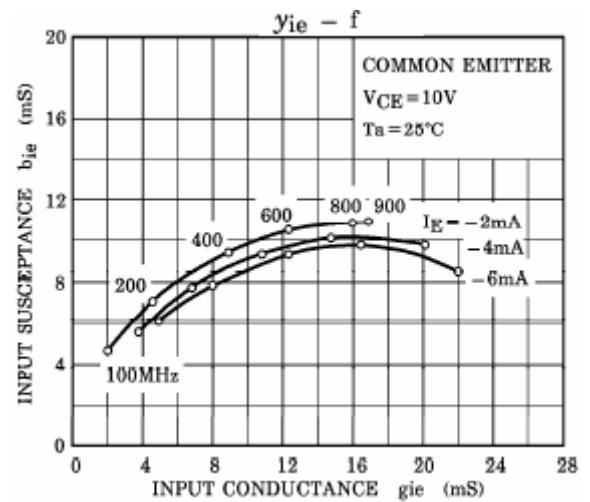
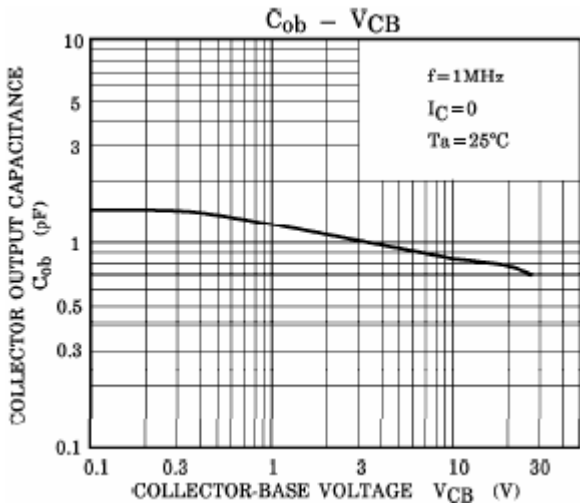
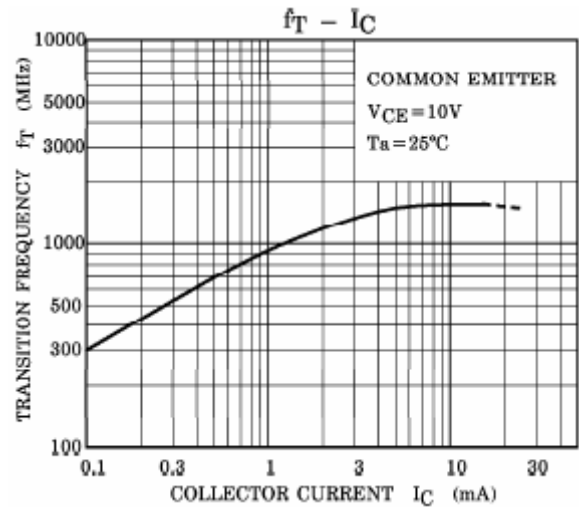
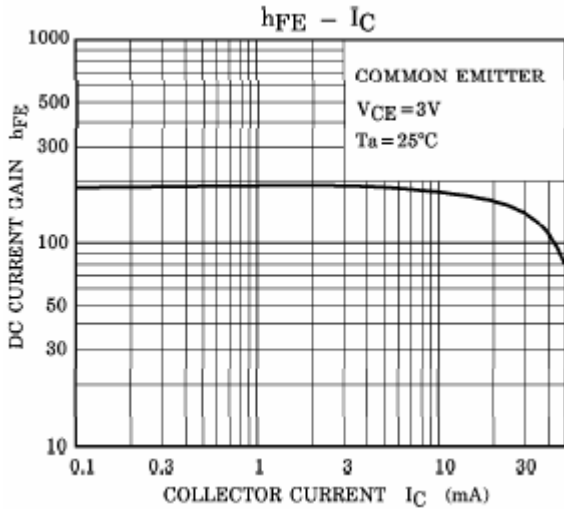


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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	15			V
I_{CBO}	Collector Cutoff Current	$V_{CB}=15\text{V}; I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=3\text{V}; I_C=0$			1.0	μA
h_{FE}	DC Current Gain	$I_C=8\text{mA}; V_{CE}=3\text{V}$	60		320	
f_T	Current-Gain—Bandwidth Product	$I_C=8\text{mA}; V_{CE}=10\text{V}$	1100	1500		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$		0.9	1.3	pF
$r_{bb'} \cdot C_C$	Base Time Constant	$I_C=8\text{mA}; V_{CB}=10\text{V}; f=30\text{MHz}$		7	12	ps

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