

isc Silicon NPN RF Transistor

2SC3125

DESCRIPTION

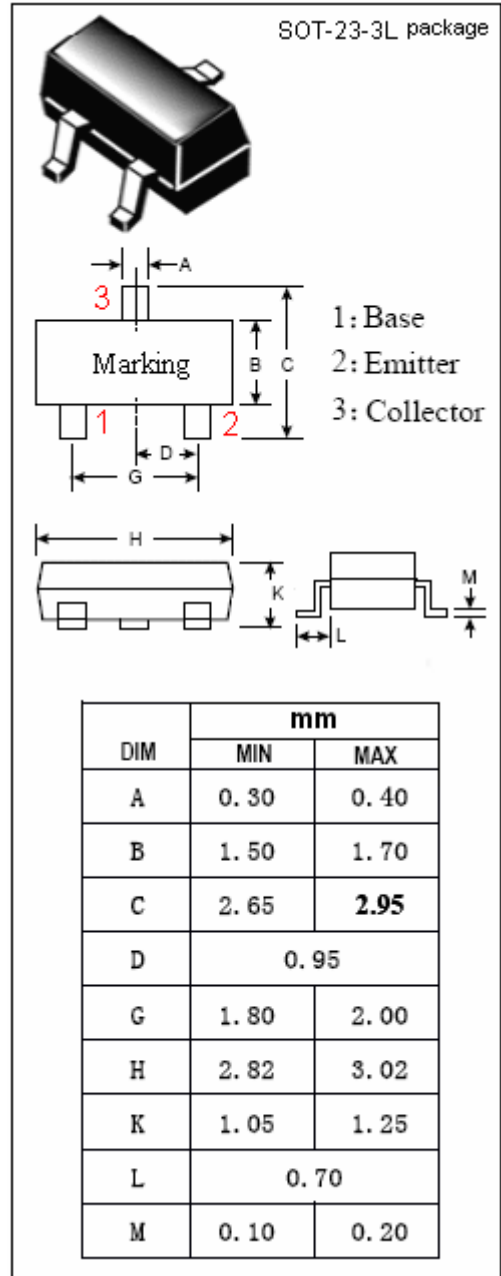
- Good Linearity of f_T

APPLICATIONS

- Designed for TV Final Picture IF amplifier 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	25	V
V_{EBO}	Emitter-Base Voltage	4	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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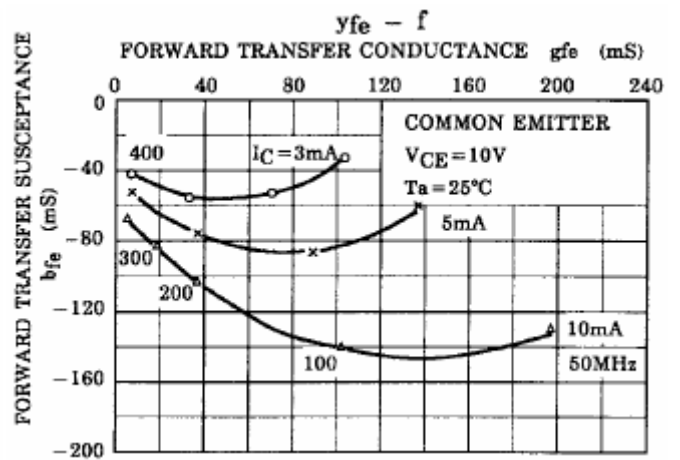
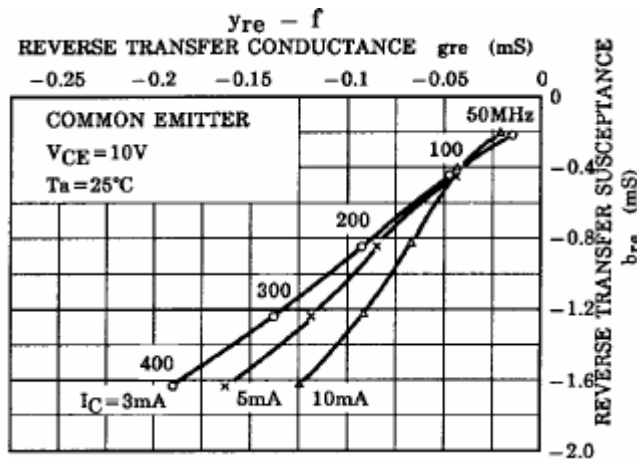
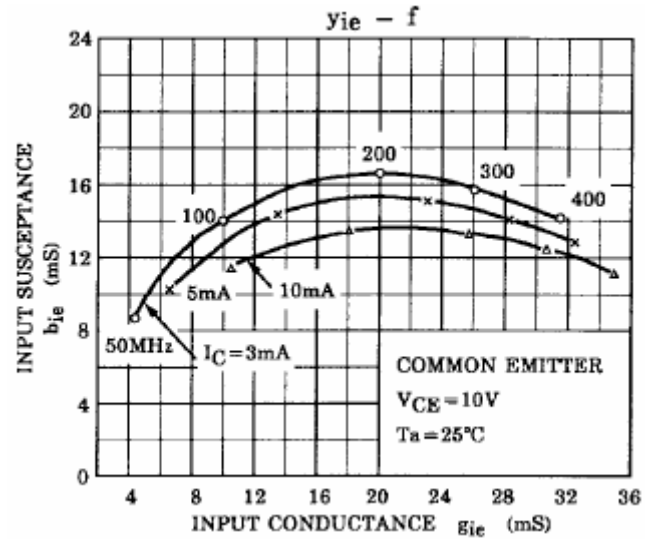
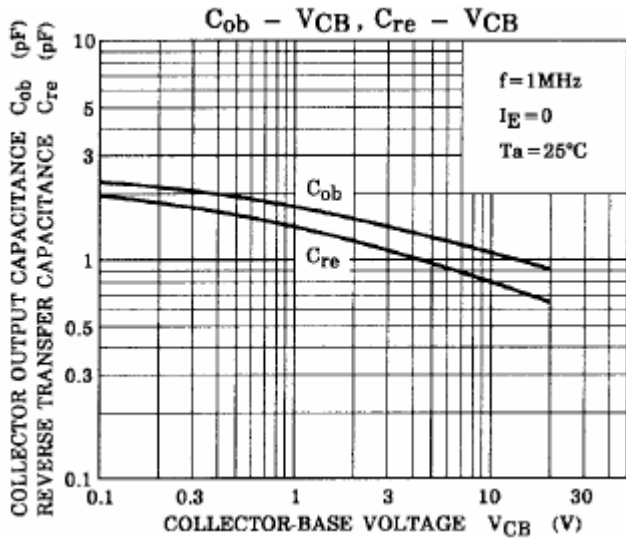
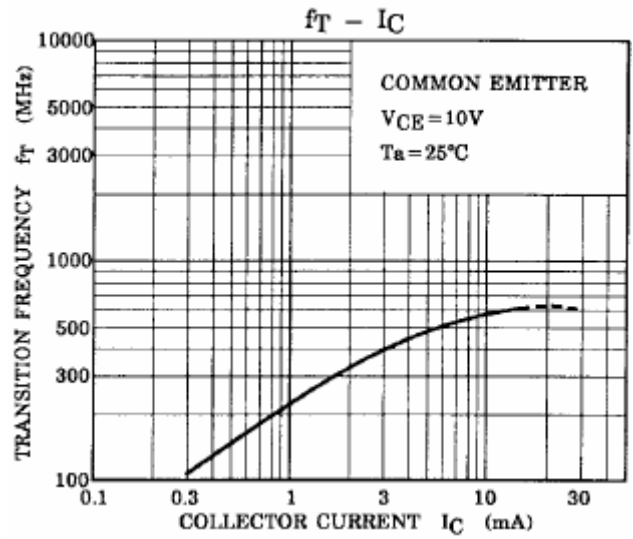
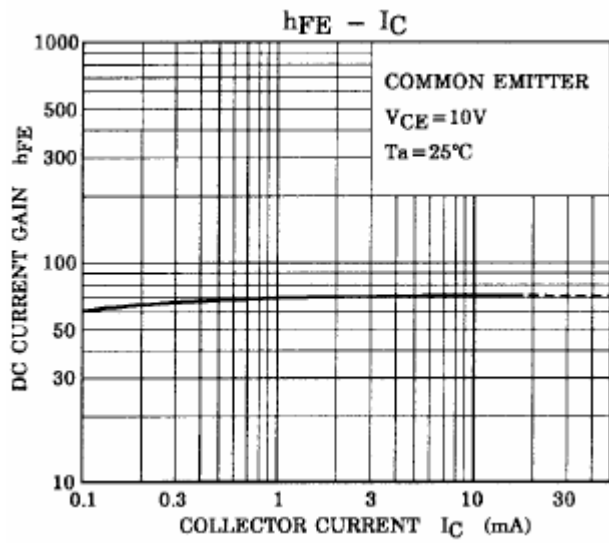
ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}$; $I_B=0$	25			V
I_{CBO}	Collector Cutoff Current	$V_{CB}=30\text{V}$; $I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=3\text{V}$; $I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$I_C=10\text{mA}$; $V_{CE}=10\text{V}$	20		200	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=15\text{mA}$; $I_B=1.5\text{mA}$			0.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=15\text{mA}$; $I_B=1.5\text{mA}$			1.5	V
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f=1.0\text{MHz}$		1.1	1.6	pF
$r_{bb'} \cdot C_C$	Base Time Constant	$I_C=1\text{mA}$; $V_{CB}=10\text{V}$; $f=30\text{MHz}$			25	ps
f_T	Current-Gain—Bandwidth Product	$I_C=10\text{mA}$; $V_{CE}=10\text{V}$	250	600		MHz

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