

isc Silicon NPN RF Transistor

2SC1907

**DESCRIPTION**

- Low Noise
- High Gain Bandwidth Product

**APPLICATIONS**

- Designed for VHF TV tuner and local oscillator applications.

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	30	V
V <sub>CEO</sub>	Collector-Emitter Voltage	19	V
V <sub>EBO</sub>	Emitter-Base Voltage	2	V
I <sub>C</sub>	Collector Current-Continuous	50	mA
I <sub>E</sub>	Emitter Current-Continuous	-50	mA
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	0.3	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

TO-92 package

1: Base  
2: Emitter  
3: Collector

DIM	mm	
	MIN	MAX
A	4.33	4.83
B	4.33	4.83
C	14.0	15.0
D	0.36	0.56
E	2.54	
F	1.27	
G	0.92	1.12
H	3.40	3.60

## isc Silicon NPN RF Transistor

## 2SC1907

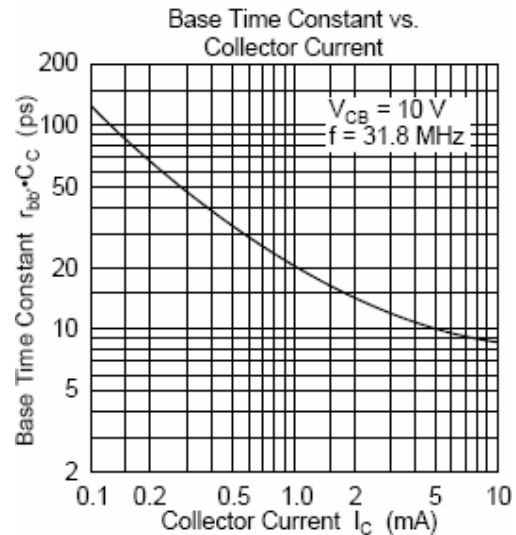
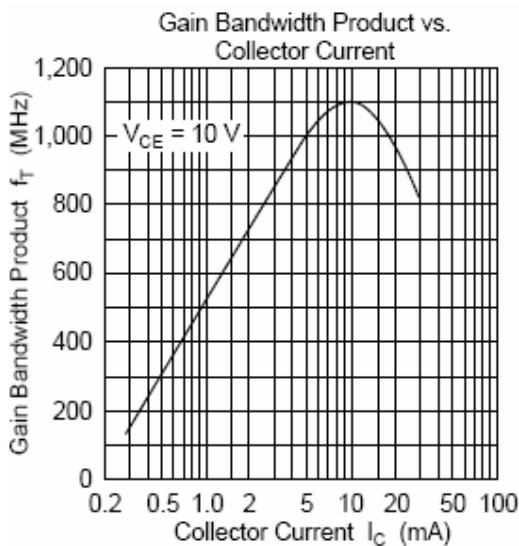
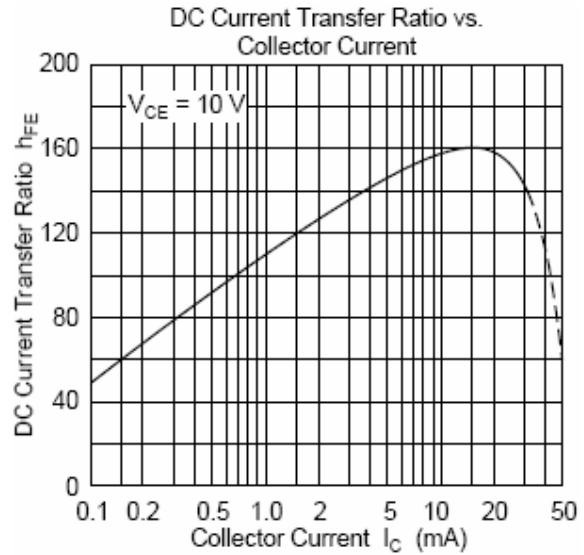
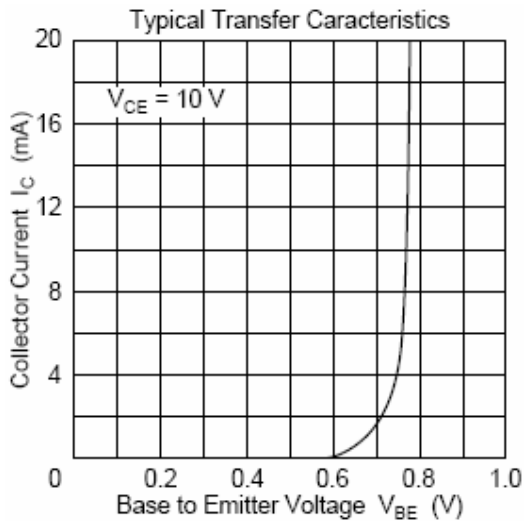
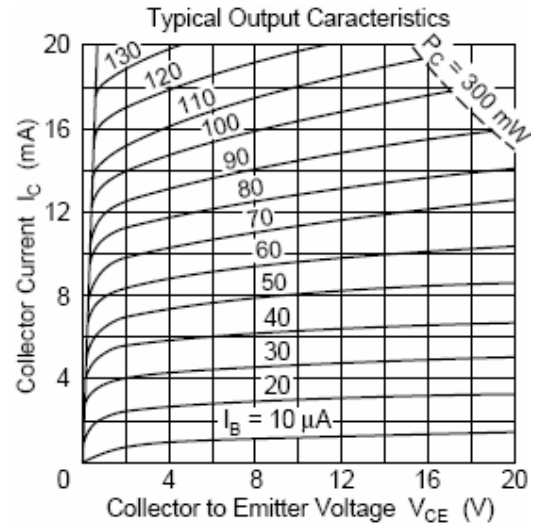
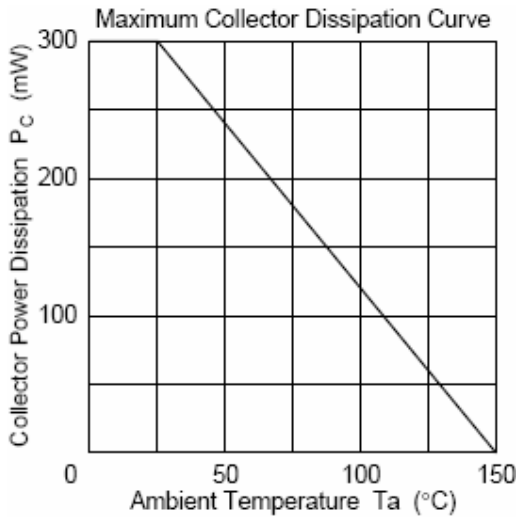
## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=10\mu\text{A}; I_E=0$	30			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=3\text{mA}; R_{BE}=\infty$	19			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}; I_C=0$	2			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=20\text{mA}; I_B=4\text{mA}$			1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=10\text{V}; I_E=0$			0.5	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=10\text{mA}; V_{CE}=10\text{V}$	40			
$f_T$	Current-Gain—Bandwidth Product	$I_C=10\text{mA}; V_{CE}=10\text{V}$	900	1100		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$		1.0	2.0	pF
$r_{bb} \cdot C_C$	Base Time Constant	$V_{CB}=10\text{V}, I_C=10\text{mA}, f=31.8\text{MHz}$		10	25	ps
$P_{out}$	Oscillation Output Power	$V_{CB}=10\text{V}, I_C=10\text{mA}, f=930\text{MHz}$		8		mW

isc Silicon NPN RF Transistor

2SC1907



isc Silicon NPN RF Transistor

2SC1907

