

DESCRIPTION

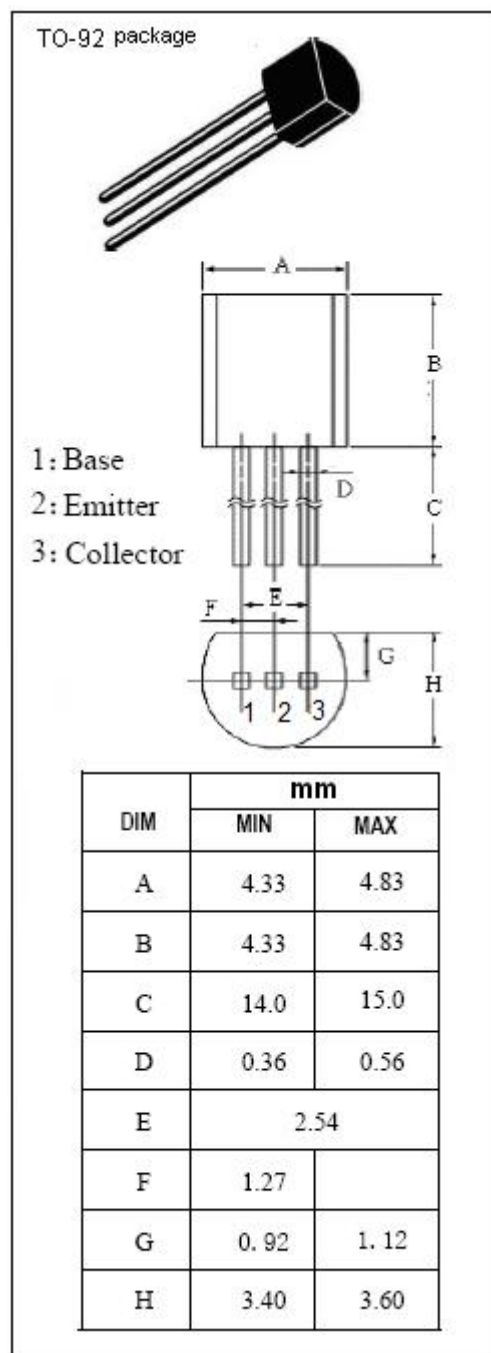
- Low Noise
- High Gain Bandwidth Product
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for VHF TV tuner and local oscillator applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	19	V
V _{EBO}	Emitter-Base Voltage	2	V
I _C	Collector Current-Continuous	50	mA
I _E	Emitter Current-Continuous	-50	mA
P _C	Collector Power Dissipation @T _c =25°C	0.3	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon NPN RF Transistor

2SC1907

ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μ A ; I _E = 0	30			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 3mA ; R _{BE} = ∞	19			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10 μ A ; I _C = 0	2			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 20mA ; I _B = 4mA			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 10V ; I _E = 0			0.5	μ A
h _{FE}	DC Current Gain	I _C = 10mA ; V _{CE} = 10V	40			
f _T	Current-Gain—Bandwidth Product	I _C = 10mA ; V _{CE} = 10V	900	1100		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V ; f= 1.0MHz		1.0	2.0	pF
τ _{bb'} • C _C	Base Time Constant	V _{CB} = 10V, I _C = 10 mA, f = 31.8 MHz		10	25	ps
P _{out}	Oscillation Output Power	V _{CB} = 10 V, I _C = 10mA ; f = 930MHz		8		mW

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