



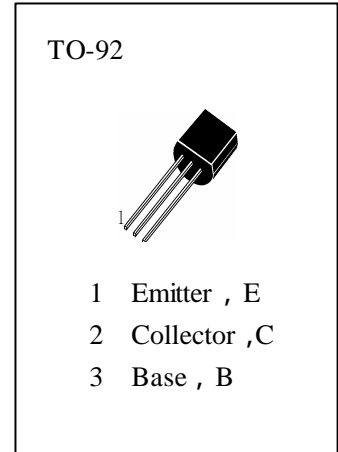
HC1417

APPLICATIONS

High Frequency Amplifier Application

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	Storage Temperature.....	-55~150
T_j	Junction Temperature.....	150
P_C	Collector Dissipation.....	625mW
V_{CBO}	Collector-Base Voltage.....	20V
V_{CEO}	Collector-Emitter Voltage.....	15V
V_{EBO}	Emitter-Base Voltage.....	3V
I_C	Collector Current.....	30mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	20			V	$I_C=100\mu A, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	15			V	$I_C=1mA, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	3			V	$I_E=100\mu A, I_C=0$
ICBO	Collector Cut-off Current			0.1	μA	$V_{CB}=10V, I_E=0$
IEBO	Emitter Cut-off Current			0.1	μA	$V_{EB}=3V, I_C=0$
HFE	DC Current Gain	54		146		$V_{CE}=6V, I_C=1mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			0.5	V	$I_C=10mA, I_B=1mA$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage			1.42	V	$I_C=10mA, I_B=1mA$
ft	Current Gain-Bandwidth Product	100	300		MHz	$V_{CE}=10V, I_C=50mA$
Cob	Output Capacitance		1.4		pF	$V_{CB}=10V, I_E=0, f=1MHz$
NF	Noise Figure		5.5		dB	$V_{CE}=6V, I_C=1mA, R_G=500$

h_{FE} Classification

F	G	H
54—80	72--108	97--146