

RoHS Compliant Product  
A suffix of "-C" specifies halogen and lead free

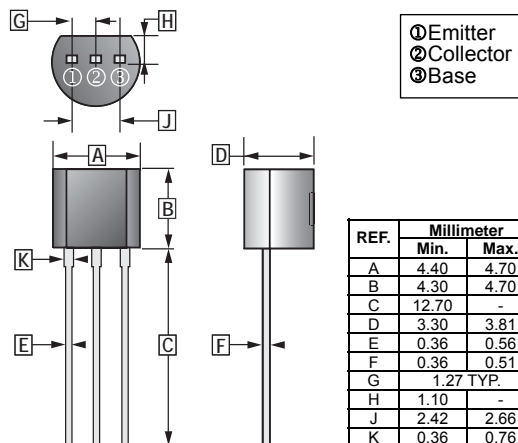
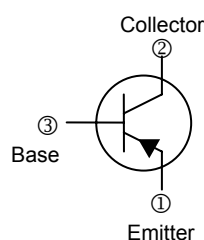
## FEATURES

Power dissipation

## PACKAGE INFORMATION

Weight: 0.2100g (Approximately)

TO-92



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V <sub>CBO</sub>	-60	V
Collector to Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter to Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current -Continuous	I <sub>C</sub>	-100	mA
Total Power Dissipation	P <sub>C</sub>	250	mW
Junction, Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	+150, -55 ~ +150	°C

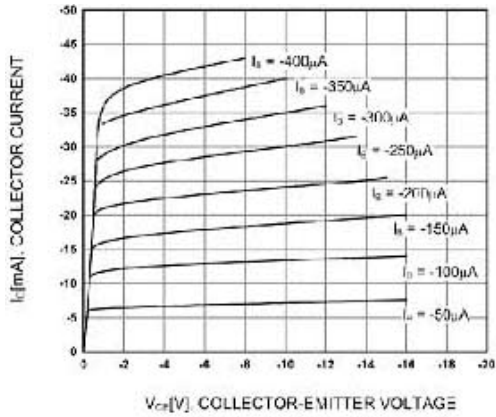
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>CBO</sub>	-60	-	-	V	I <sub>C</sub> = -50μA, I <sub>E</sub> = 0
BV <sub>CEO</sub>	-50	-	-	V	I <sub>C</sub> = -1mA, I <sub>B</sub> = 0
BV <sub>EBO</sub>	-5	-	-	V	I <sub>E</sub> = -50μA, I <sub>C</sub> = 0
I <sub>CBO</sub>	-	-	-100	nA	V <sub>CB</sub> = -60V, I <sub>E</sub> = 0
I <sub>EBO</sub>	-	-	-100	nA	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0
V <sub>CE(sat)</sub>	-	-0.18	-0.30	V	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA
V <sub>BE</sub>	-0.58	-0.62	-0.68	V	V <sub>CE</sub> = -6V, I <sub>C</sub> = -1.0mA
h <sub>FE</sub>	90	200	600		V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA
f <sub>T</sub>	100	-	-	MHz	V <sub>CE</sub> = -6V, I <sub>C</sub> = -10mA
C <sub>ob</sub>	-	-	6	pF	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1 MHz
NF (noise figures)	-	-	20	dB	V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.3mA, R <sub>g</sub> = 10kΩ, f = 100HZ

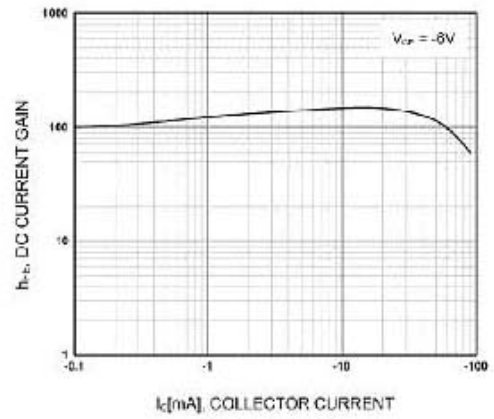
## CLASSIFICATION OF h<sub>FE</sub>

Rank	R	Q	P	K
Range	90 - 180	135 - 270	200 - 400	300 - 600

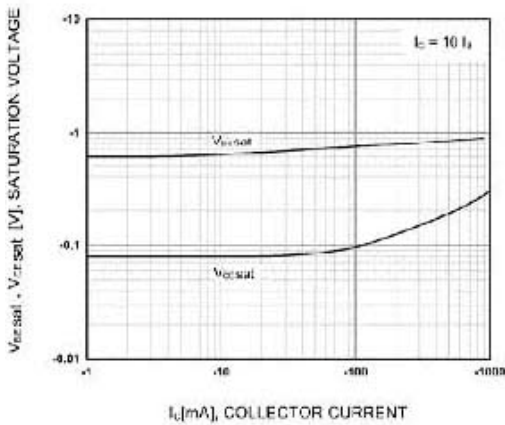
**CHARACTERISTIC CURVES**



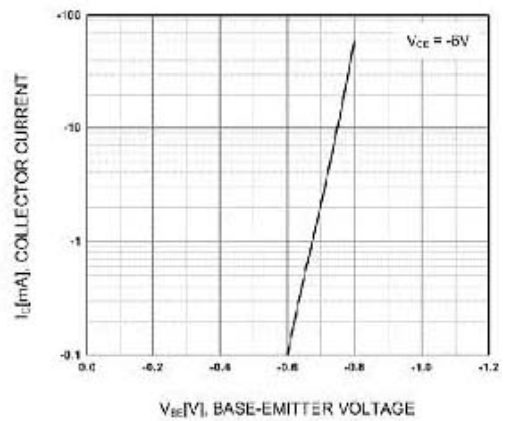
**Static Characteristic**



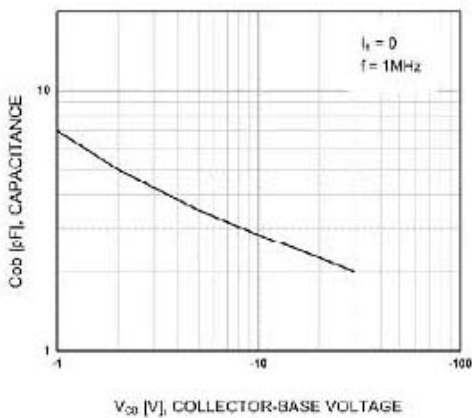
**DC current Gain**



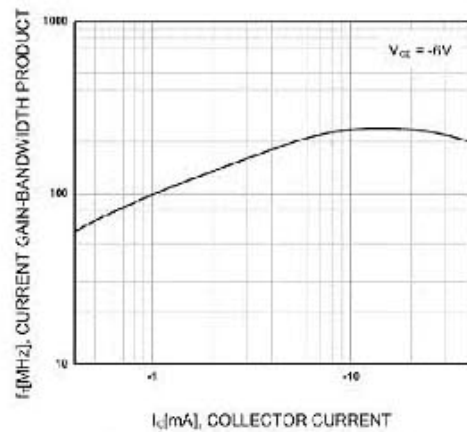
**Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Base-Emitter On Voltage**



**Collector Output Capacitance**



**Current Gain Bandwidth Product**