

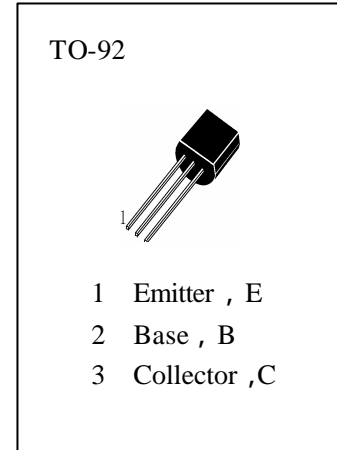


**APPLICATIONS**

**AM/FM AMPLIFIER , LOCAL OSCILLATOR  
OF FM/VHF TUNER**

**ABSOLUTE MAXIMUM RATINGS (  $T_a=25$  )**

- $T_{stg}$ —Storage Temperature..... -55~150
- $T_j$ —Junction Temperature.....150
- $P_C$ —Collector Dissipation.....400mW
- $V_{CBO}$ —Collector-Base Voltage.....30V
- $V_{CEO}$ —Collector-Emitter Voltage.....15V
- $V_{EBO}$ —Emitter-Base Voltage.....5V
- $I_C$ —Collector Current.....50mA



**ELECTRICAL CHARACTERISTICS (  $T_a=25$  )**

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
$I_{CBO}$	Collector Cut-off Current			0.05	$\mu A$	$V_{CB}=12V, I_E=0$
$h_{FE}$	DC Current Gain	54		198		$V_{CE}=5V, I_C=1mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			0.5	V	$I_C=10mA, I_B=1mA$
$BV_{CBO}$	Collector-Base Breakdown Voltage	30			V	$I_C=100\mu A, I_E=0$
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	15			V	$I_C=1mA, I_B=0$
$BV_{EBO}$	Emitter-Base Breakdown Voltage	5			V	$I_E=100\mu A, I_C=0$
$C_{ob}$	Output Capacitance		1.3	1.7	pF	$V_{CB}=10V, I_E=0, f=1MHz$
$f_T$	Current Gain-Bandwidth Product	700			MHz	$V_{CE}=5V, I_C=5mA$

**$h_{FE}$  Classification**

F	G	H	I
54—80	72—108	97—146	132—198



## Typical Characteristics

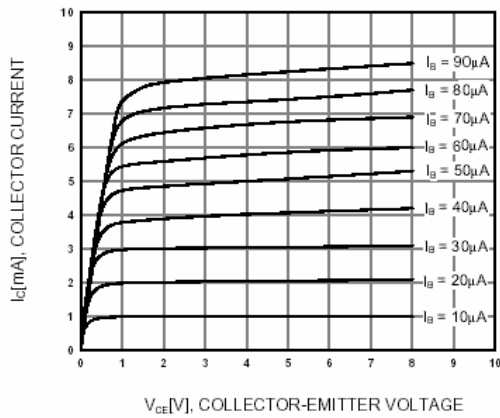


Figure 1. Static Characteristic

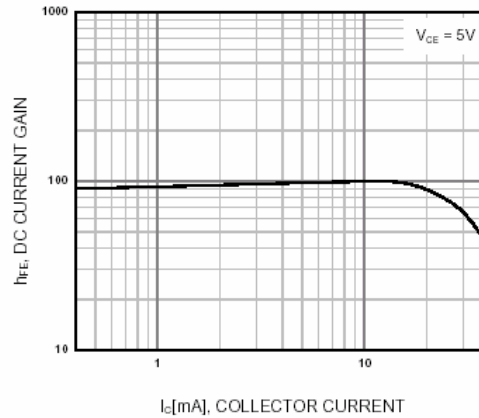


Figure 2. DC current Gain

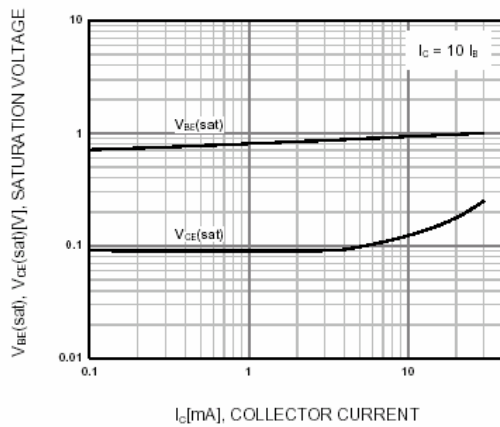


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

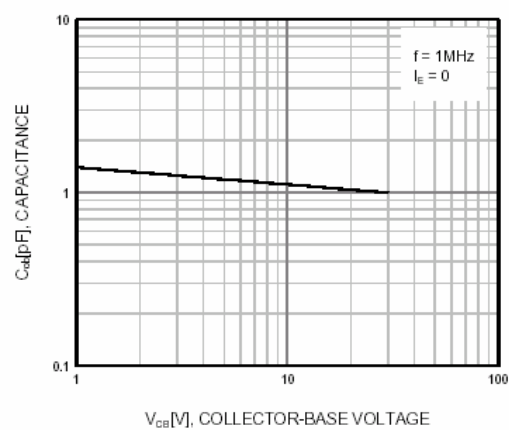


Figure 4. Output Capacitance

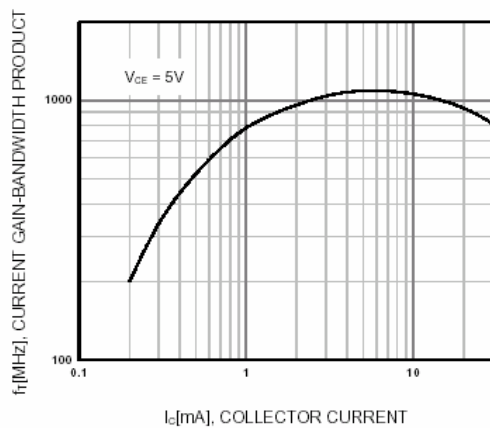


Figure 5. Current Gain Bandwidth Product