

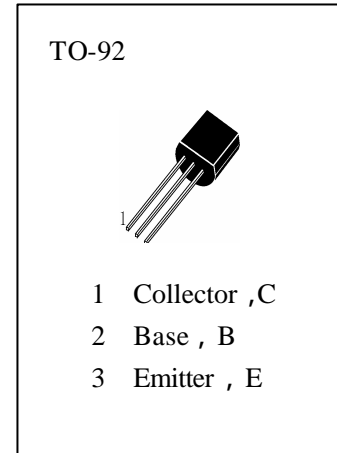


APPLICATIONS

SWITCHING AND AMPLIFIER

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

- T_{stg} —Storage Temperature..... -55~150
- T_j —Junction Temperature.....150
- P_C —Collector Dissipation.....500mW
- V_{CBO} —Collector-Base Voltage.....-50V
- V_{CEO} —Collector-Emitter Voltage.....-45V
- V_{EBO} —Emitter-Base Voltage.....-5V
- I_C —Collector Current.....-100mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	-50			V	$I_C=-100 \mu A, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	-45			V	$I_C=-10mA, I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	-5			V	$I_E=-100 \mu A, I_C=0$
ICBO	Collector Cut-off Current			-15	nA	$V_{CB}=-30V, I_E=0$
HFE	DC Current Gain	110		800		$V_{CE}=-5V, I_C=-2mA$
VCE(sat1)	Collector- Emitter Saturation Voltage		-90	-300	mV	$I_C=-10mA, I_B=-0.5mA$
VCE(sat2)			-250	-650	mV	$I_C=-100mA, I_B=-5mA$
VBE(sat1)	Base-Emitter Saturation Voltage		-700		mV	$I_C=-10mA, I_B=-0.5mA$
VBE(sat2)			-900		mV	$I_C=-100mA, I_B=-5mA$
VBE(ON1)	Base-Emitter On Voltage		-660	-750	mV	$V_{CE}=-5V, I_C=-2mA$
VBE(ON2)				-800	mV	$V_{CE}=-5V, I_C=-10mA$
fT	Current Gain-Bandwidth Product		150		MHz	$V_{CE}=-5V, I_C=-10mA, f=1MHz$
Cob	Output Capacitance			6	pF	$V_{CB}=-10V, I_E=0, f=1MHz$

hFE Classification

A	B	C
110—220	200—450	420—800

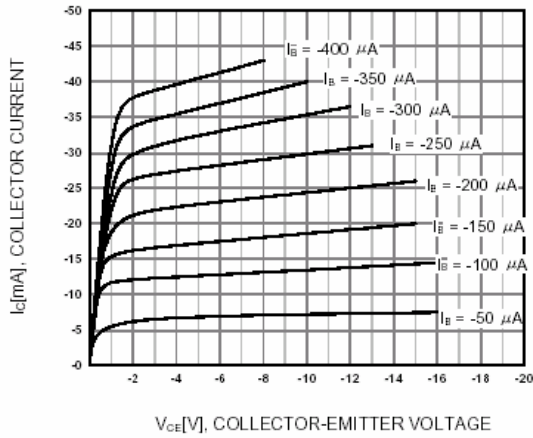


Figure 1. Static Characteristic

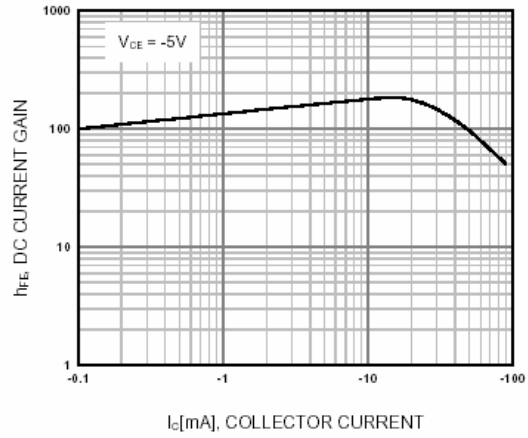


Figure 2. DC current Gain

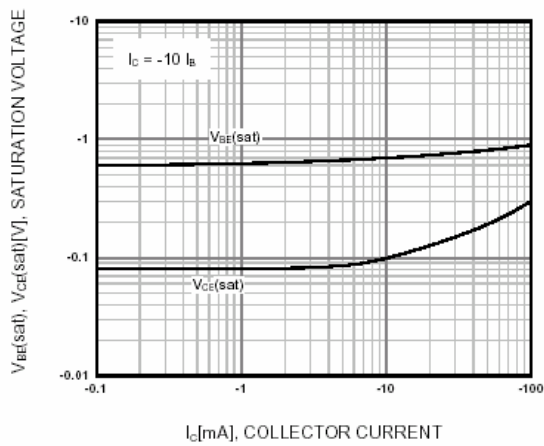


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

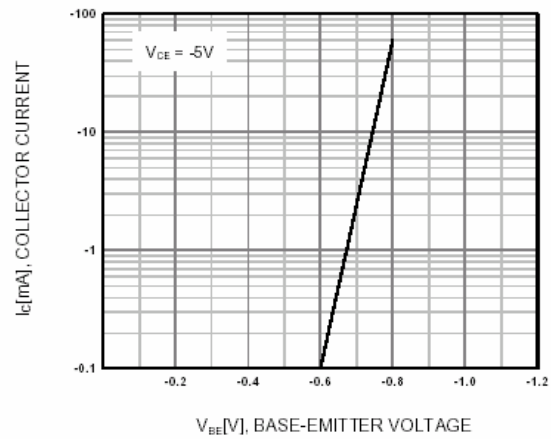


Figure 4. Base-Emitter On Voltage

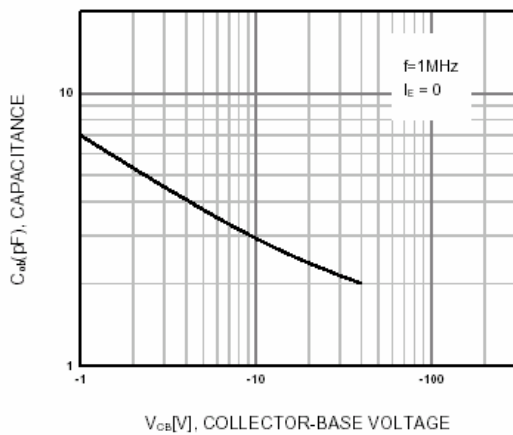


Figure 5. Collector Output Capacitance

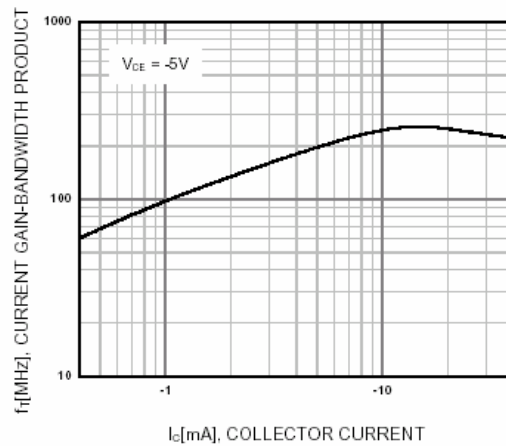


Figure 6. Current Gain Bandwidth Product