

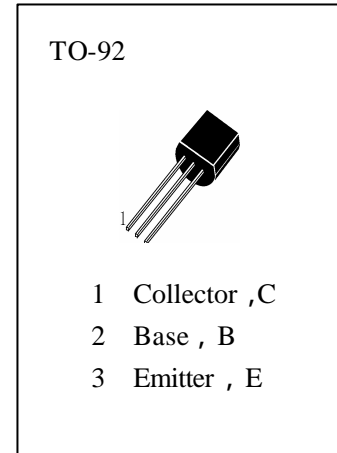


APPLICATIONS

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.....-30V
- V_{CEO} —Collector-Emitter Voltage.....-30V
- V_{EBO} —Emitter-Base Voltage.....-5V
- I_C —Collector Current.....-100mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	-30			V	$I_C=-100\mu A, I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	-30			V	$I_C=-10mA, I_B=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	-5			V	$I_E=-100\mu A, I_C=0$
I_{CBO}	Collector Cut-off Current			-15	nA	$V_{CB}=-30V, I_E=0$
h_{FE}	DC Current Gain	110		800		$V_{CE}=-5V, I_C=-2mA$
$V_{CE(sat1)}$	Collector- Emitter Saturation Voltage		-90	-300	mV	$I_C=-10mA, I_B=-0.5mA$
$V_{CE(sat2)}$			-250	-650	mV	$I_C=-100mA, I_B=-5mA$
$V_{BE(sat1)}$	Base-Emitter Saturation Voltage		-0.7		V	$I_C=-10mA, I_B=-0.5mA$
$V_{BE(sat2)}$			-0.9		V	$I_C=-100mA, I_B=-5mA$
$V_{BE(ON1)}$	Base-Emitter On Voltage		-660	-750	mV	$V_{CE}=-5V, I_C=-2mA$
$V_{BE(ON2)}$				-800	mV	$V_{CE}=-5V, I_C=-10mA$
f_T	Current Gain-Bandwidth Product		150		MHz	$V_{CE}=-5V, I_C=-10mA, f=1MHz$
C_{ob}	Output Capacitance			6	pF	$V_{CB}=-10V, I_E=0, f=1MHz$

h_{FE} Classification

A	B	C
110—220	200—450	420—800

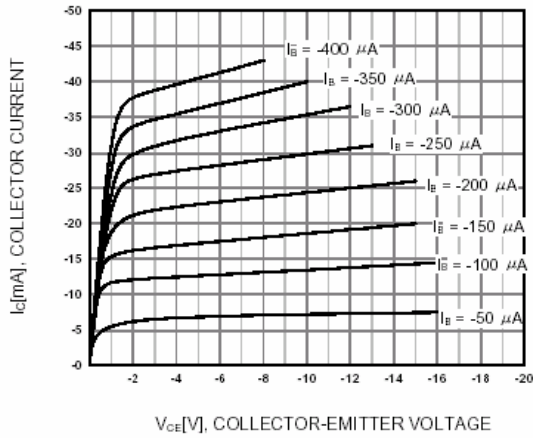


Figure 1. Static Characteristic

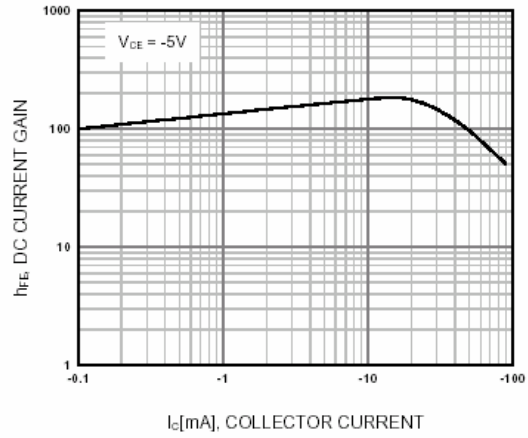


Figure 2. DC current Gain

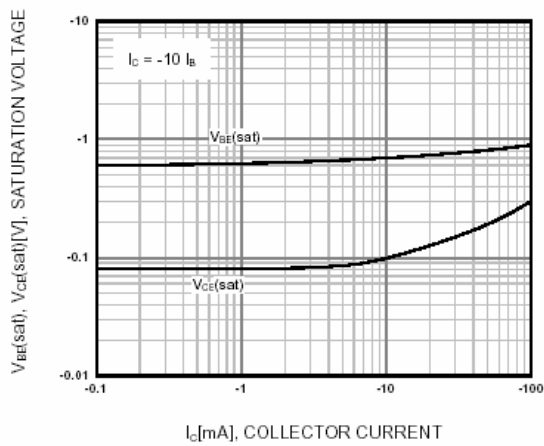


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

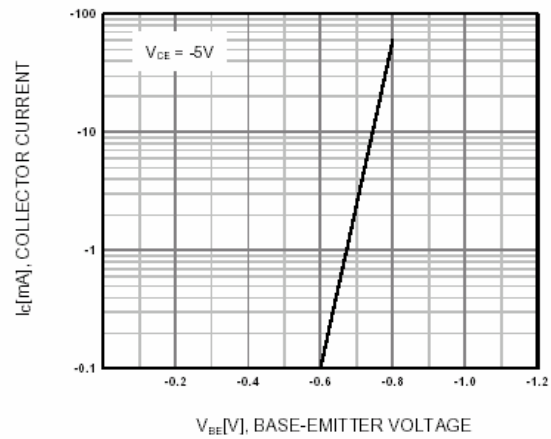


Figure 4. Base-Emitter On Voltage

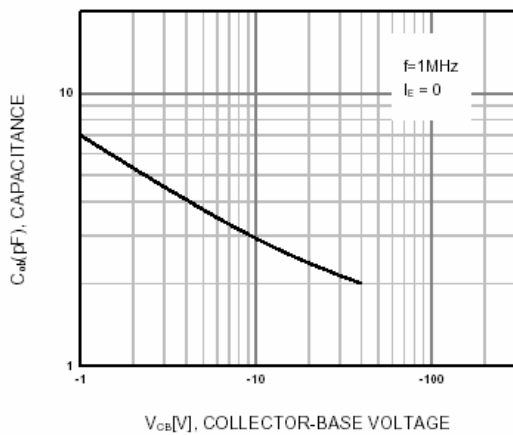


Figure 5. Collector Output Capacitance

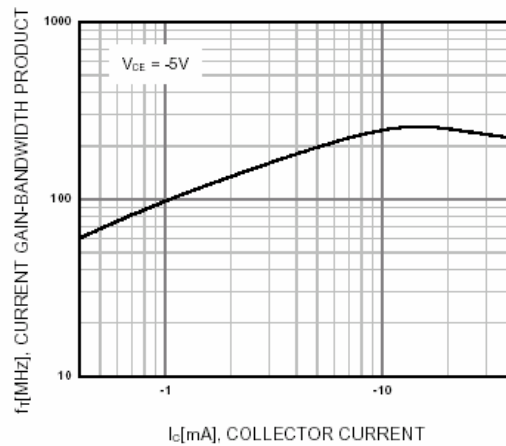


Figure 6. Current Gain Bandwidth Product