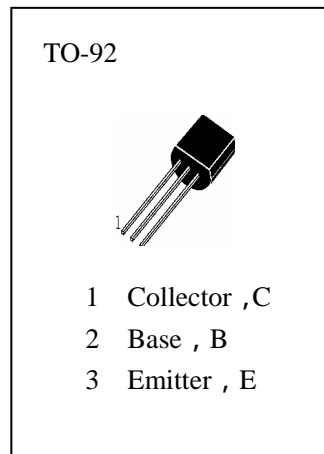




SWITCHING AND AMPLIFIER

ABSOLUTE MAXIMUM RATINGS (Ta=25)

- T_{stg}—Storage Temperature..... -55~150
- T_j—Junction Temperature.....150
- P_C—Collector Dissipation.....500mW
- V_{CBO}—Collector-Base Voltage.....80V
- V_{CEO}—Collector-Emitter Voltage.....65V
- V_{EBO}—Emitter-Base Voltage.....6V
- I_C—Collector Current.....100mA



ELECTRICAL CHARACTERISTICS (Ta=25)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	80			V	I _C =100 μ A, I _E =0
BVCEO	Collector-Emitter Breakdown Voltage	65			V	I _C =1mA, I _B =0
BVEBO	Emitter-Base Breakdown Voltage	6			V	I _E =1mA , I _C =0
ICBO	Collector Cut-off Current			15	nA	V _{CB} =30V, I _E =0
hFE (1)	DC Current Gain	110		800		V _{CE} =5V, I _C =2mA
VCE(sat1)	Collector- Emitter Saturation Voltage		90	250	mV	I _C =10mA, I _B =0.5mA
VCE(sat2)			200	600	mV	I _C =100mA, I _B =5mA
VBE(sat1)	Base-Emitter Saturation Voltage		0.7	1	V	I _C =10mA, I _B =0.5mA
VBE(sat2)			0.9	1.2	V	I _C =100mA, I _B =5mA
VBE(ON)	Base-Emitter On Voltage	580	660	700	mV	V _{CE} =5V, I _C =2mA
fT	Current Gain-Bandwidth Product		300		MHz	V _{CE} =5V, I _C =10mA
Cob	Output Capacitance		2.5		pF	V _{CB} =10V, I _E =0 f=100MHz
NF	Noise Figure		2	10	dB	V _{CE} =5V, I _C =0.2Ma f=1KHz , Rg=2K

hFE Classification

A	B	C
110—220	200—450	420—800

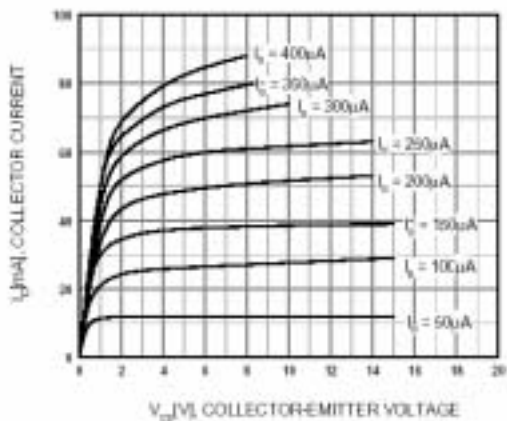


Figure 1. Static Characteristic

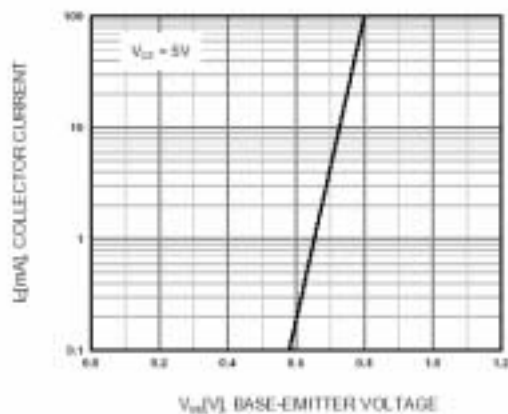


Figure 2. Transfer Characteristic

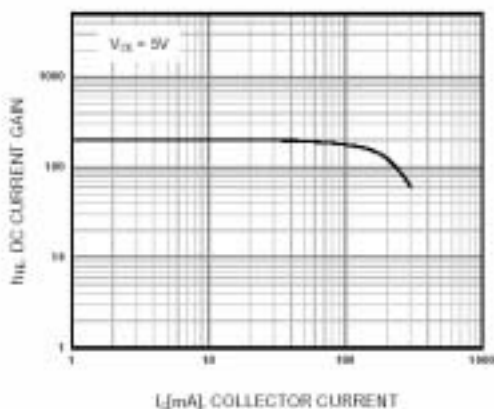


Figure 3. DC current Gain

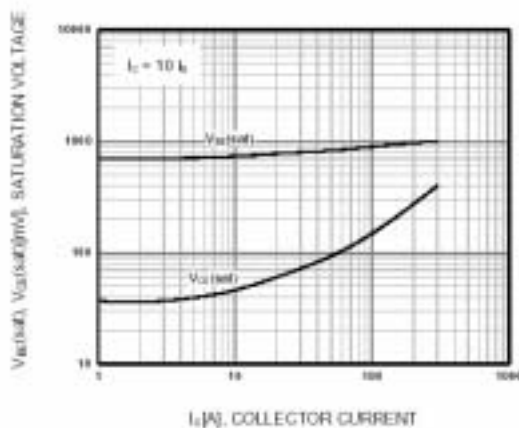


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

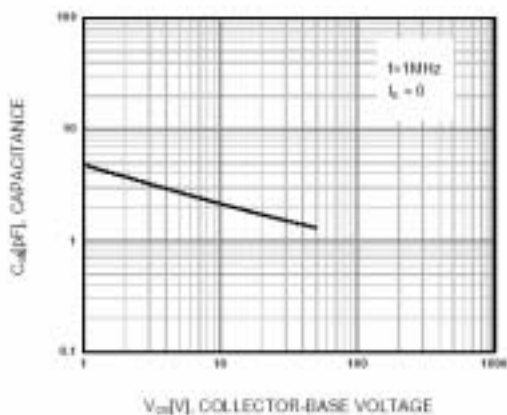


Figure 5. Output Capacitance

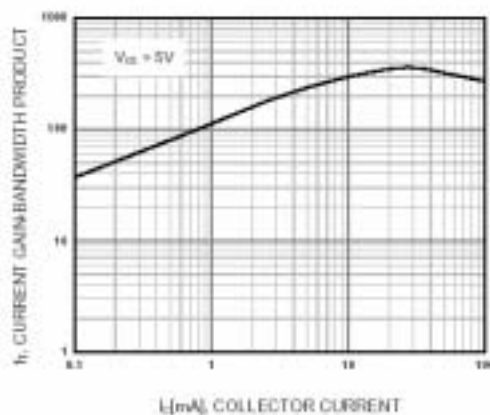


Figure 6. Current Gain Bandwidth Product