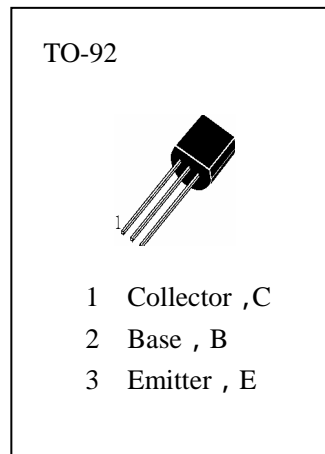




SWITCHING AND AMPLIFIER

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-Emmitter Voltage.....35V
- V_{EBO}—Emmitter-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 μ A, I _E =0
BV _{CEO}	Collector-Emmitter Breakdown Voltage	30			V	I _C =1mA, I _B =0
BV _{EBO}	Emmitter-Base Breakdown Voltage	5			V	I _E =1mA , 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- Emmitter Saturation Voltage		90	250	mV	I _C =10mA, I _B =0.5mA
V _{CE(sat2)}			200	600	mV	I _C =100mA, I _B =5mA
V _{BE(sat1)}	Base-Emmitter Saturation Voltage		0.7	1	V	I _C =10mA, I _B =0.5mA
V _{BE(sat2)}			0.9	1.2	V	I _C =100mA, I _B =5mA
V _{BE(ON1)}	Base-Emmitter On Voltage	580	660	700	mV	V _{CE} =5V, I _C =2mA
f _T	Current Gain-Bandwidth Product		300		MHZ	V _{CE} =5V, I _C =10mA
C _{ob}	Output Capacitance		2.5		pF	V _{CB} =10V, I _E =0 f=100MHZ
NF	Noise Figure		2	10	dB	V _{CE} =5V, I _C =200 μ A f=1KHZ , R _g =2K

h_{FE} Classification

A	B	C
110—220	200—450	420—800

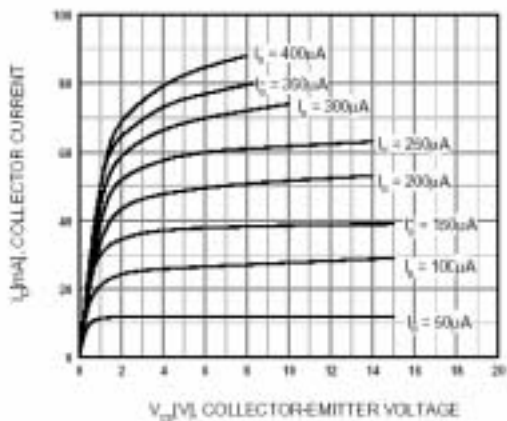


Figure 1. Static Characteristic

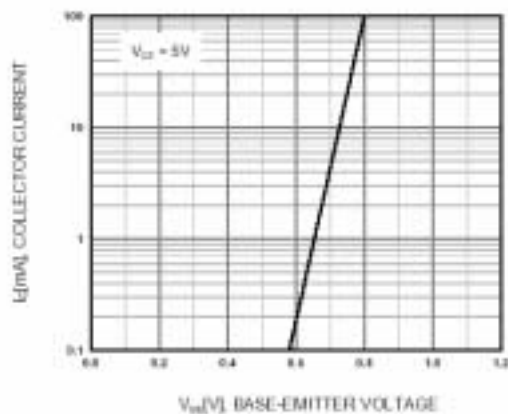


Figure 2. Transfer Characteristic

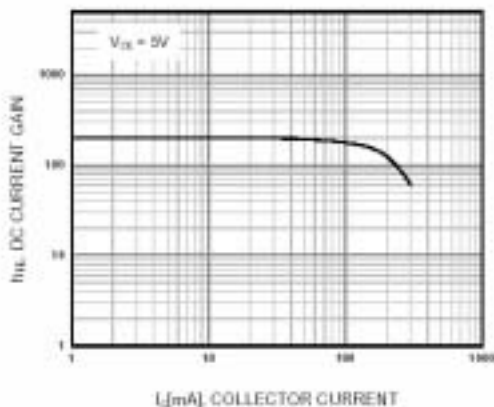


Figure 3. DC current Gain

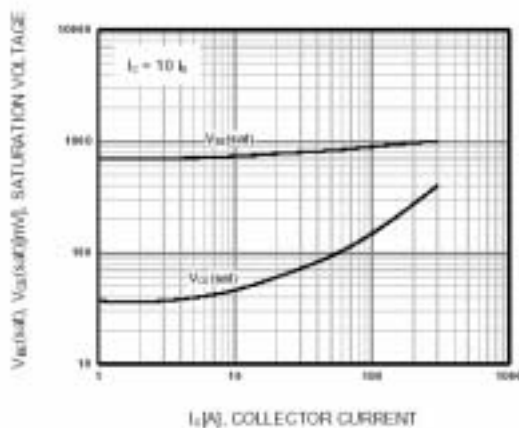


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

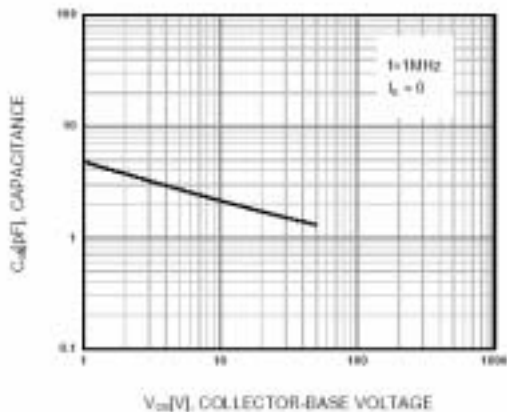


Figure 5. Output Capacitance

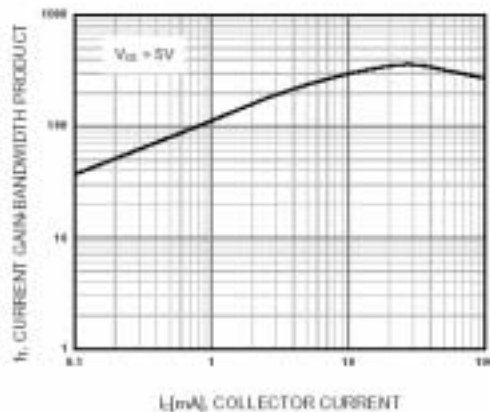


Figure 6. Current Gain Bandwidth Product