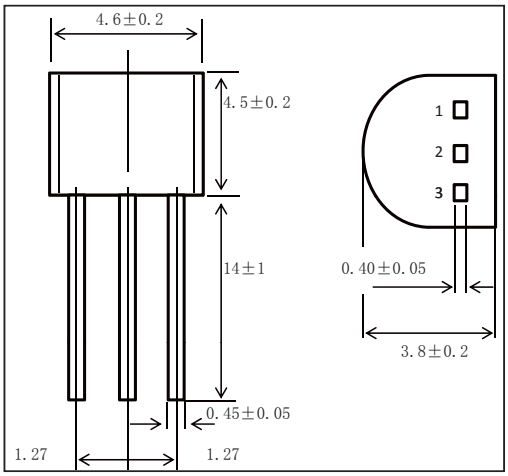
TO-92 Plastic-Encapsulate Transistors

FEATURES

- ●Switching and amplification in high voltage
- ●Applications such as telephony
- ●Low current
- ●High voltage
- ●NPN Transistors

MECHANICAL DATA

- ●Case style:TO-92 molded plastic
- ●Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

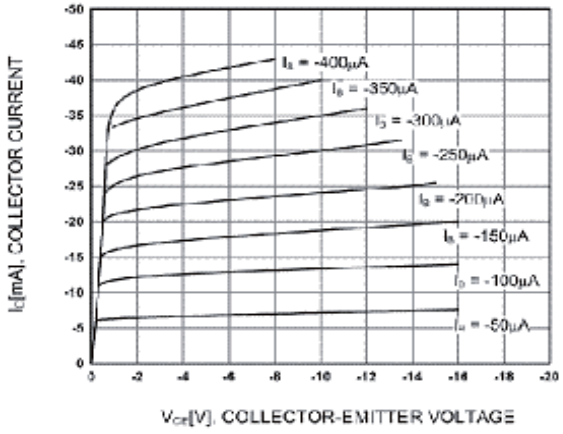
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-100	mA
Total Device Dissipation	P_D	250	mW
Junction Temperature	T_J	150	℃
Junction and Storage Temperature	T_{stg}	-55-150	℃

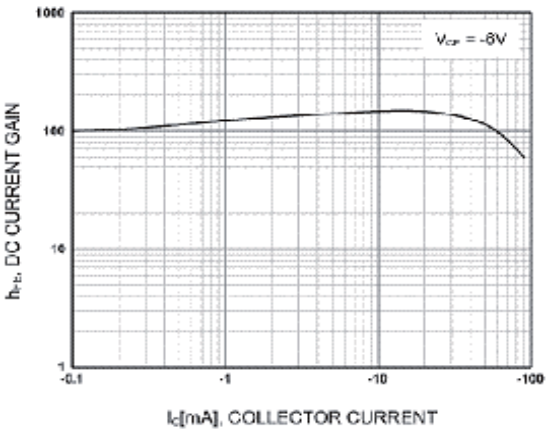
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= -50uA I_E=0	-60			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C -1mA I_B=0	-50			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_C -50uA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB} -60 V I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB} -5 V I_C=0			-0.1	uA
DC current gain	h_{FE}	$_{CE}$V = -6 V, I_C= -1mA	90	200	600	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C= -100mA, I_B=- 10mA		-0.18	-0.3	V
Base-emitter voltage	V_{BE}	$_{CE}$V =-6V,I_C=-1.0mA	-0.58	-0.62	-0.68	V
Transition frequency	f_T	V_{CE}=-6V,I_C=-10mA	100	180		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz		4.5	6	pF
Noise figure	NF	V_{CE}=-6V,I_C=-0.3mA, Rg=10kΩ,f=100Hz		6	20	dB

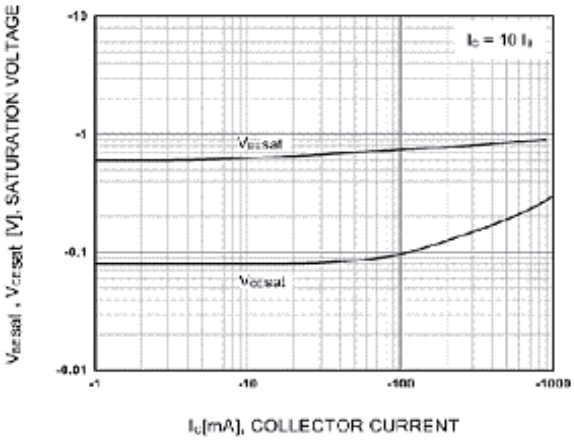
RATINGS AND CHARACTERISTIC CURVES



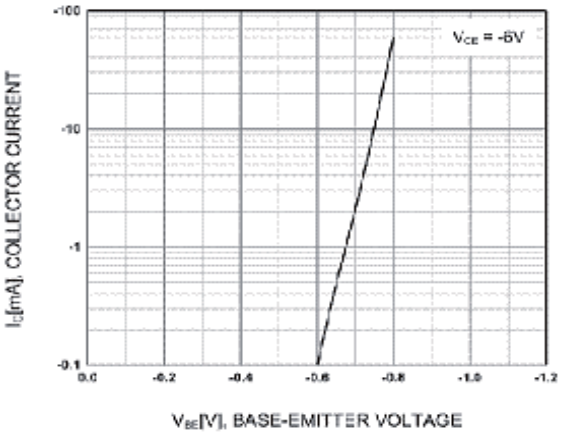
Static Characteristic



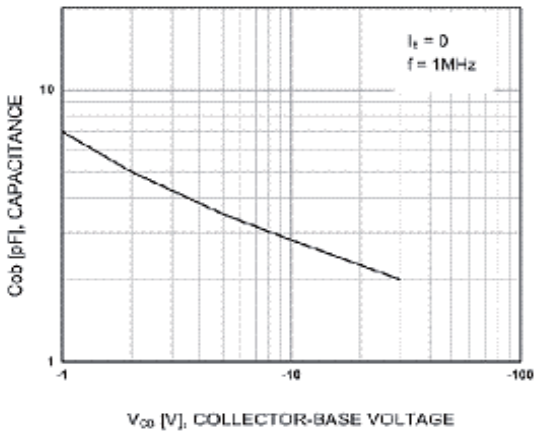
DC current Gain



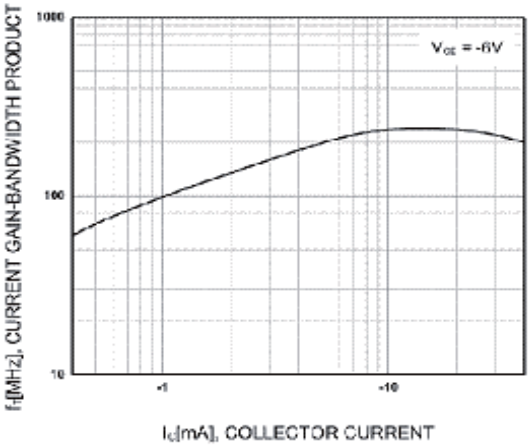
Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Base-Emitter On Voltage



Collector Output Capacitance



Current Gain Bandwidth Product