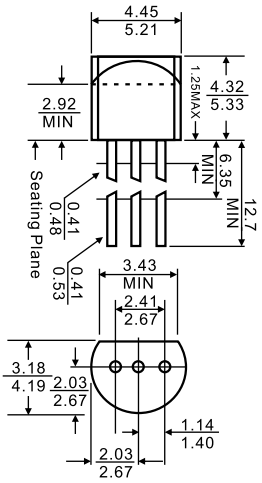
A733

TO-92 Bipolar Transistors(PNP)

1. EMITTER
2. COLLECTOR
3. BASE

TO-92



Dimensions in inches and (millimeters)

Features

✧ Power dissipation

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

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_E= -50uA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -60V, 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}	V_{CE}= -6V, 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}	V_{CE}=-6V,I_C=-1.0mA	-0.58	-0.62	-0.68	V
Transition frequency	f_T	V_{CE}=-6V,I_C=-10mA	100			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz			6	pF
Noise figure	NF	V_{CE}=-6V,I_C=-0.3mA, Rg=10kΩ,f=100Hz			20	dB

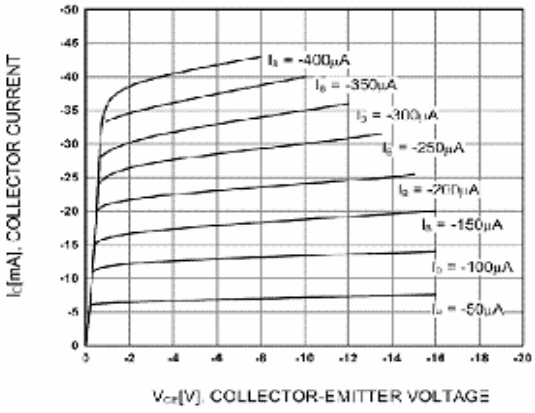
CLASSIFICATION OF h_{FE}

Rank	R	Q	P	K
Range	90-180	135-270	200-400	300-600

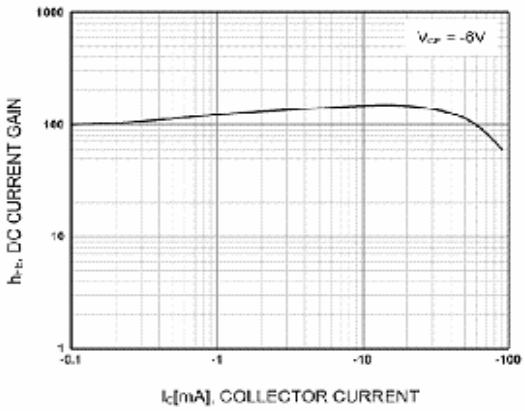
A733

TO-92 Bipolar Transistors(PNP)

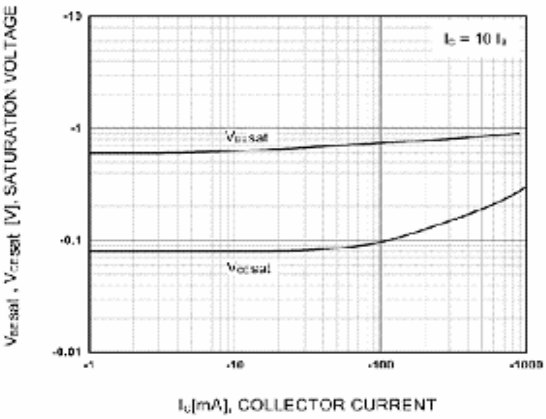
Typical Characteristics



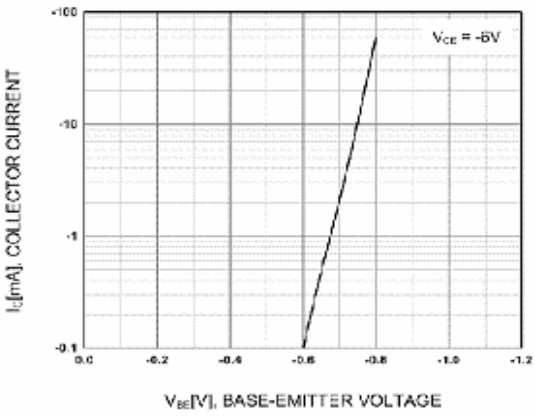
Static Characteristic



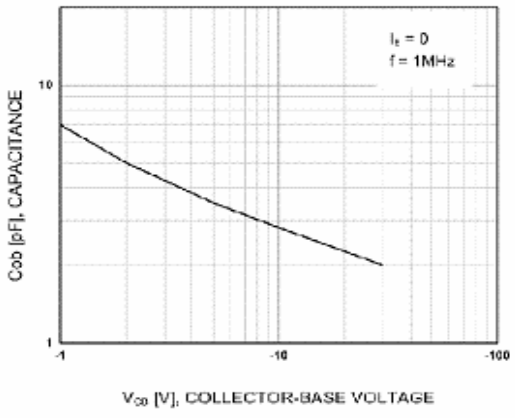
DC current Gain



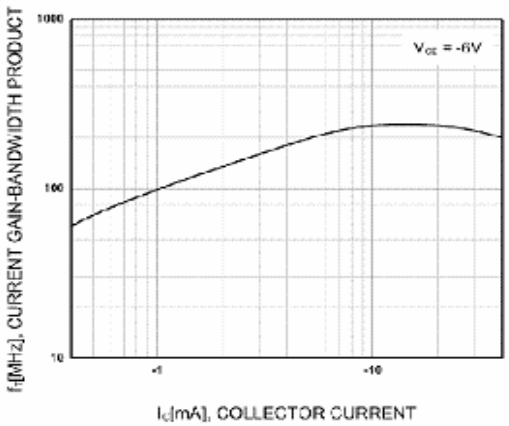
Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Base-Emitter On Voltage



Collector Output Capacitance



Current Gain Bandwidth Product

Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	Bulk	1000pcs/BP	10,000pcs	245×170×100	100,000pcs	525×375×270
TO-92	Tape	2000pcs/TP	2000pcs	333×162×43	20,000pcs	350×340×250