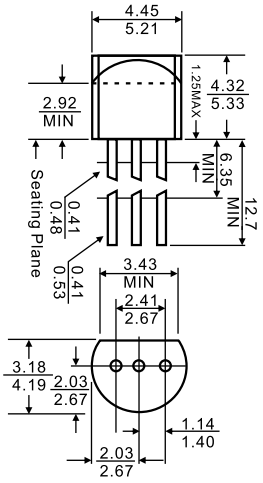
2N5400(PNP)

TO-92 Bipolar Transistors

1. EMITTER
2. BASE
3. COLLECTOR

TO-92



Dimensions in inches and (millimeters)

Features

- ✧ **Switching and amplification in high voltage Applications such as telephony**
- ✧ **Low current(max. 600mA)**
- ✧ **High voltage(max.130v)**

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-130	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.6	A
P_C	Collector Power Dissipation	0.625	W
T_j	Junction Temperature	150	℃
T_{stg}	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=-100μA, I_E=0	-130			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -10μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -100 V, I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -3 V, I_C=0			-0.1	μA
DC current gain	h_{FE1}	V_{CE}= -5 V, I_C=-1mA	30			
	h_{FE2}	V_{CE}= -5 V, I_C= -10mA	40		180	
	h_{FE3}	V_{CE}= -5 V, I_C=-50mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -10mA, I_B= -1mA			-0.2	V
	$V_{CE(sat)}$	I_C= -50mA, I_B= -5mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= -10mA, I_B= -1mA			-1	V
	$V_{BE(sat)}$	I_C= -50mA, I_B= -5mA			-1	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-10mA f =30MHz	100			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz			6	pF

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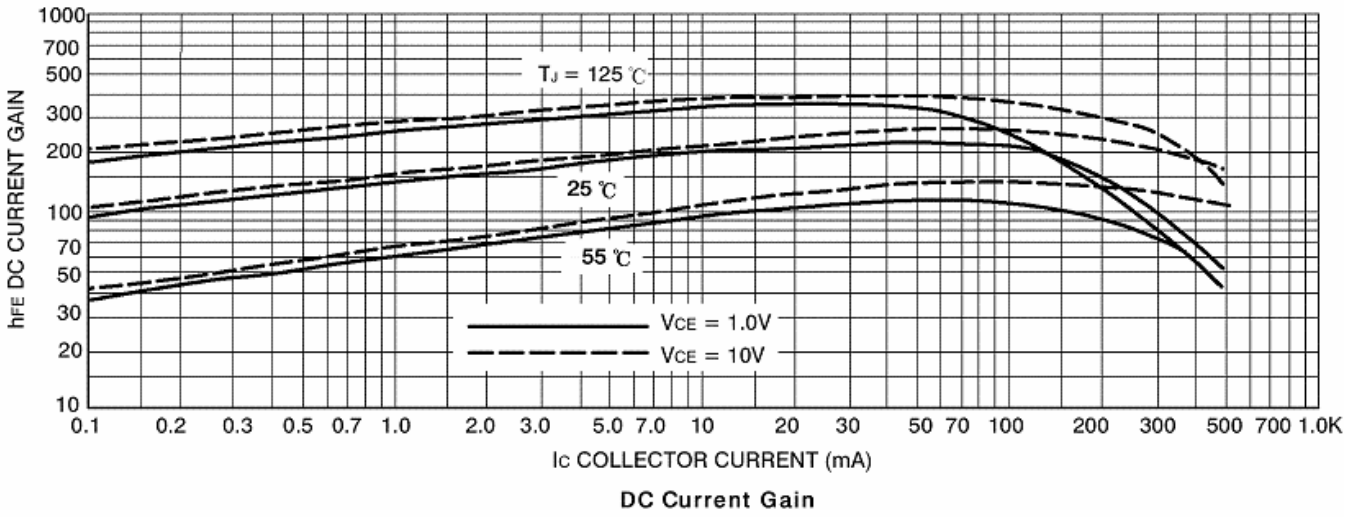
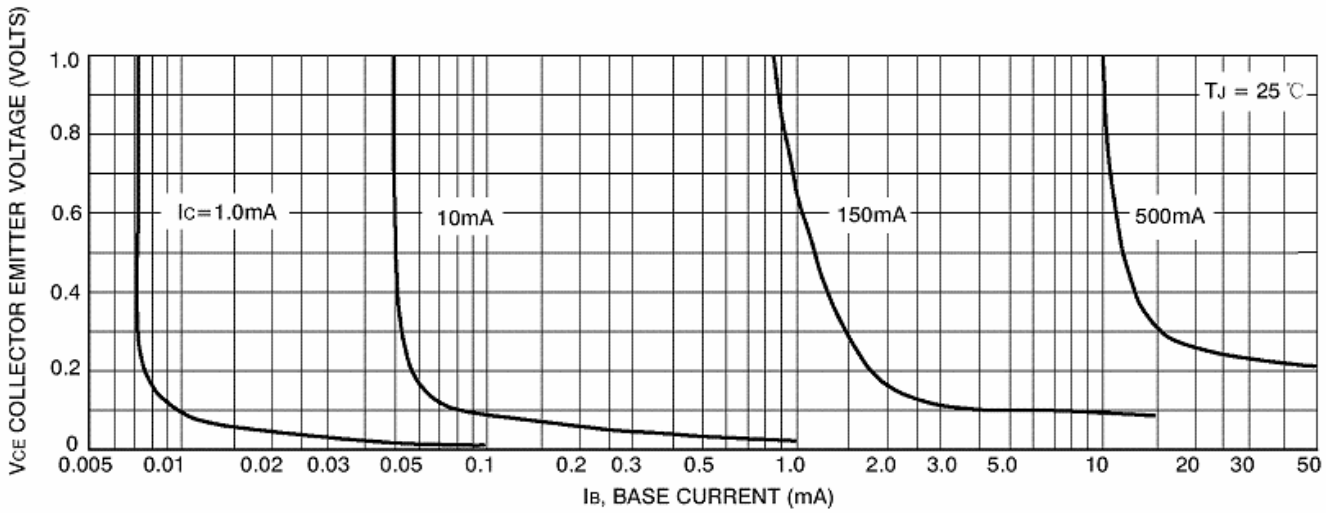
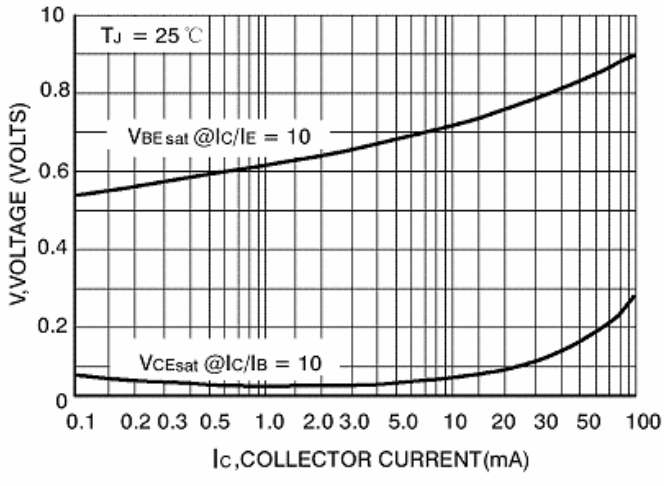
Typical Characteristics



DC Current Gain



Collector Saturation Region



"On" Voltages