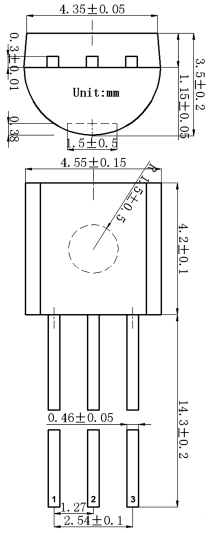
TO-92 Plastic-Encapsulate Transistors

PNP Transistors

Features

■ Excellent hFE Linearity



1. Emitter

2. Base

3. Collector

Maximum Ratings (T_a=25°C unless otherwise noted)

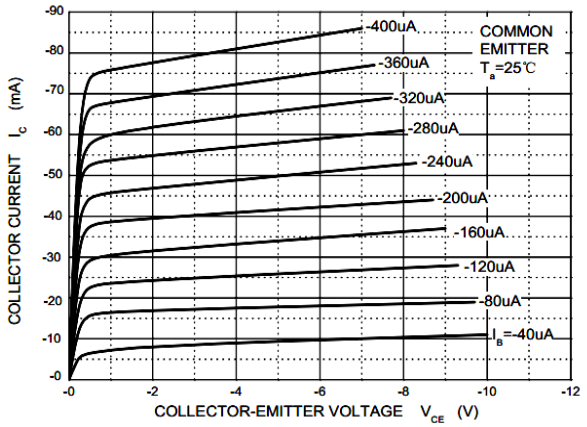
Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	-40	V
V_{CEO}	Collector Emitter Voltage	-25	V
V_{EBO}	Emitter Base Voltage	-5	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	625	mW
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	- 55 to +150	°C

Electrical Characteristics (T_a=25°C unless otherwise specified)

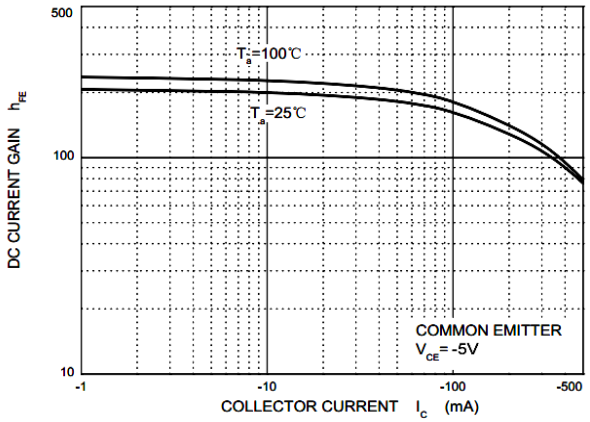
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-100μA,I_E=0	-40			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-1mA,I_B=0	-25			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-100μA,I_C=0	-5			V
I_{CBO}	Collector cut-off current	V_{CB}=-40V,I_E=0			-100	nA
I_{CEO}	Collector cut-off current	V_{CE}=-20V,I_B=0			-100	nA
I_{EBO}	Emitter cut-off current	V_{EB}=-3V,I_C=0			-100	nA
$h_{FE(1)}$	DC current gain	V_{CE}=-5V, I_C=-1mA	200		300	
$h_{FE(2)}$		V_{CE}=-5V, I_C=-10mA	150			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=-500mA,I_B=-50mA			-0.6	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=-500mA,I_B=-50mA			-1.2	V
f_T	Transition frequency	V_{CE}=-6V,I_C=-20mA,f=30MHz	150			MHz

Typical Characteristics

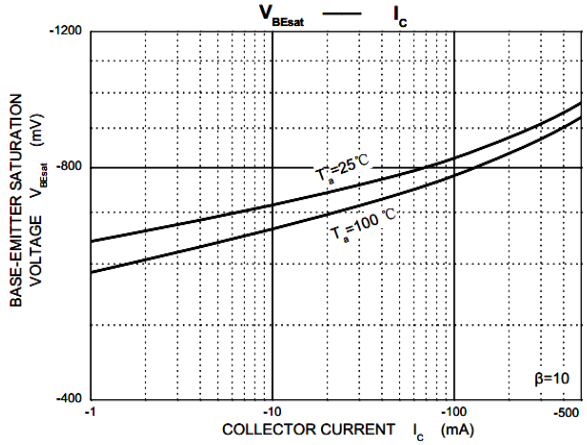
Static Characteristic



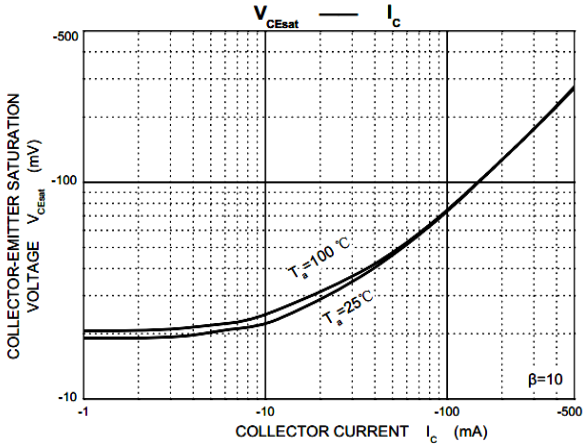
h_{FE} —— I_C



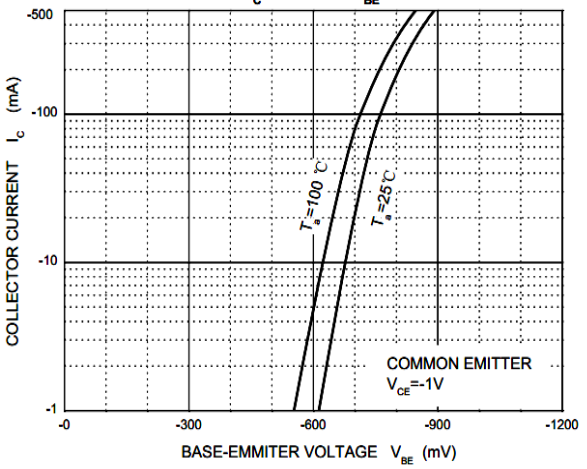
V_{BEsat} —— I_C



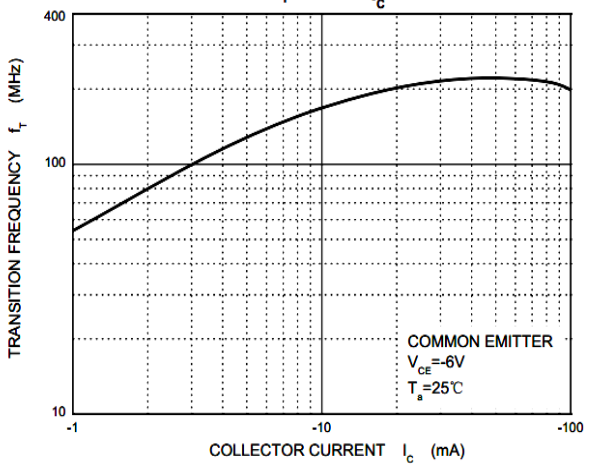
V_{CEsat} —— I_C



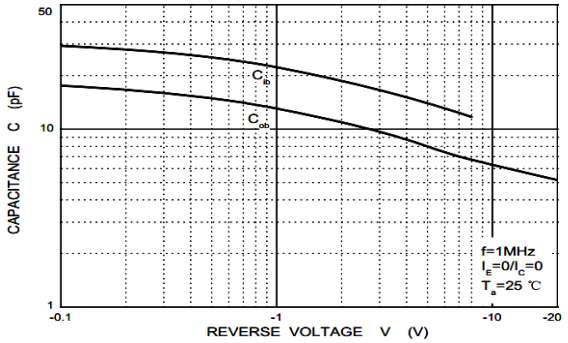
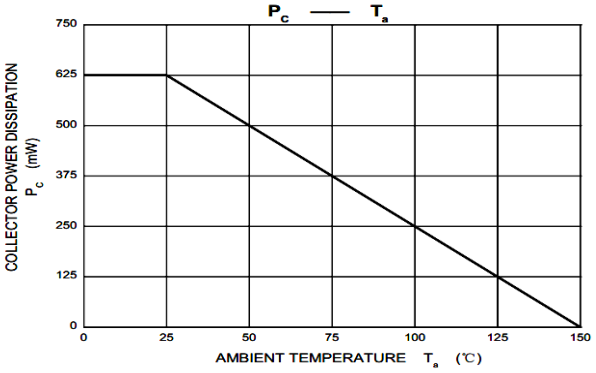
I_C —— V_{BE}



f_T —— I_C



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a