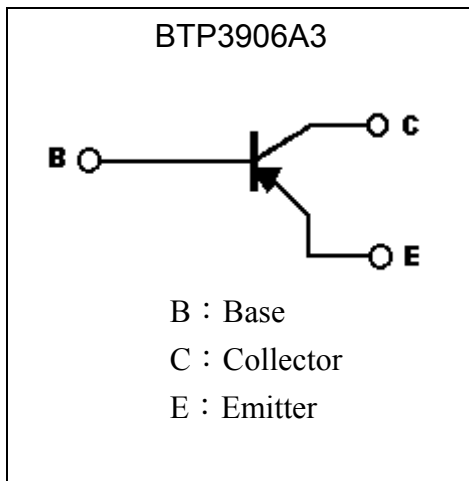
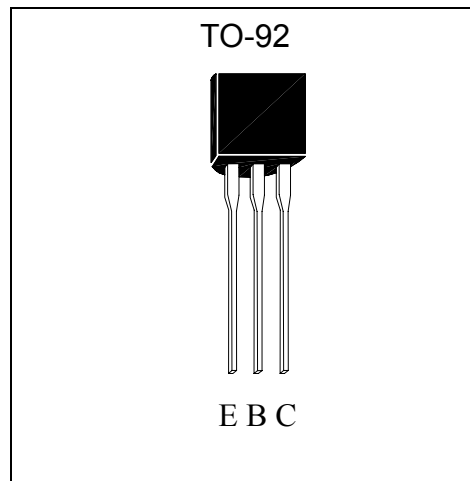


General Purpose PNP Epitaxial Planar Transistor

BTP3906A3

Description

- High Cutoff Frequency.
- Complementary to BTN3904A3.

Symbol

Outline

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-200	mA
Power Dissipation	P _d	625	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	200	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

**Characteristics (Ta=25°C)**

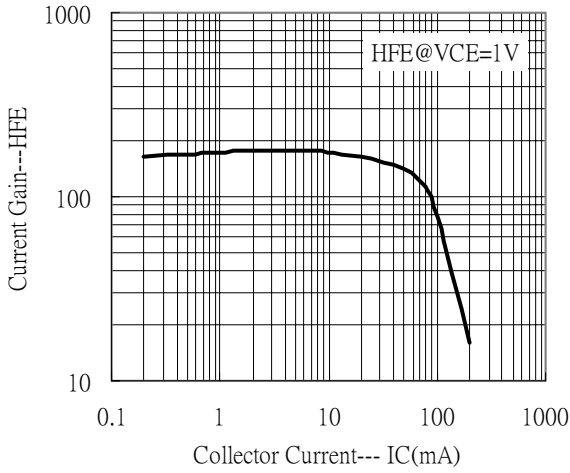
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-40	-	-	V	IC=-10μA
BVCEO	-40	-	-	V	IC=-1mA
BVEBO	-5	-	-	V	IE=-10μA
ICEX	-	-	-50	nA	VCE=-30V, VBE=3V
IEBO	-	-	-50	nA	VEB=-4V
*VCE(sat)	-	-0.05	-0.25	V	IC=-10mA, IB=-1mA
*VCE(sat)	-	-0.12	-0.4	V	IC=-50mA, IB=-5mA
*VBE(sat)	-0.65	-0.76	-0.85	V	IC=-10mA, IB=-1mA
*VBE(sat)	-	-0.88	-0.95	V	IC=-50mA, IB=-5mA
*hFE	60	-	-		VCE=-1V, IC=-100μA
*hFE	80	-	-		VCE=-1V, IC=-1mA
*hFE	100	-	300		VCE=-1V, IC=-10mA
*hFE	60	-	-		VCE=-1V, IC=-50mA
*hFE	30	-	-		VCE=-1V, IC=-100mA
fT	250	-	-	MHz	VCE=-20V, IC=-10mA, f=100MHz
Cob	-	-	4.5	pF	VCB=-5V, IE=0A, f=1MHz

*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

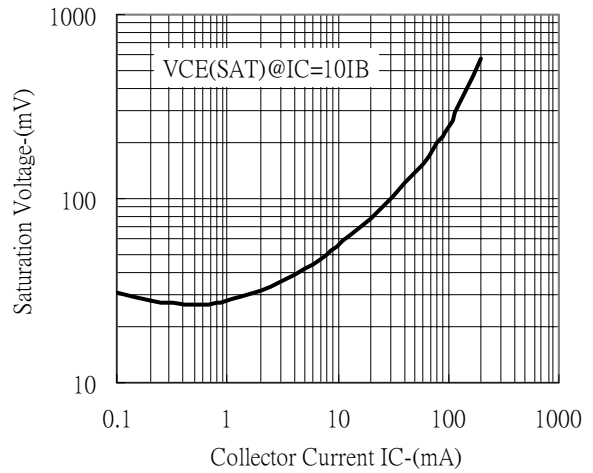


Characteristic Curves

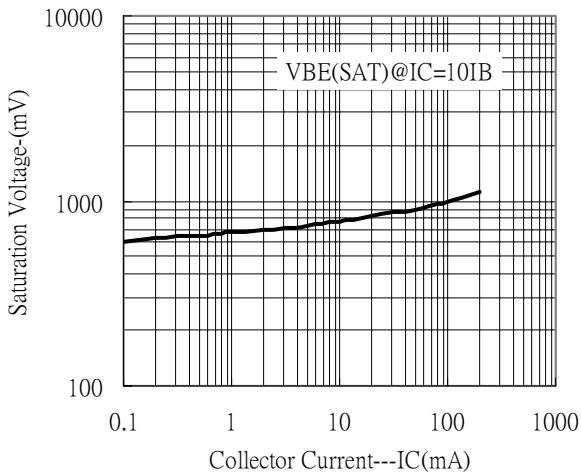
Current Gain vs Collector Current



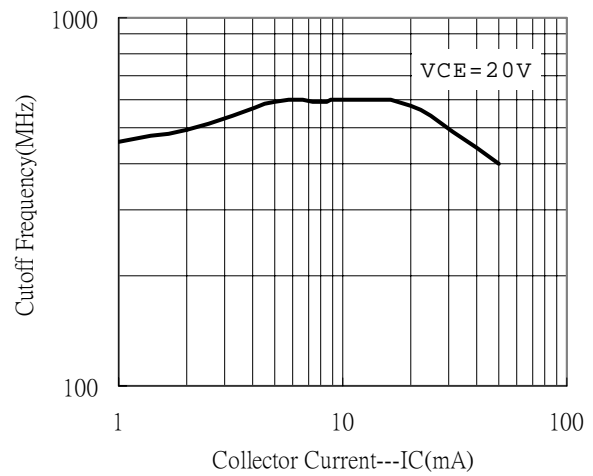
Saturation Voltage vs Collector Current



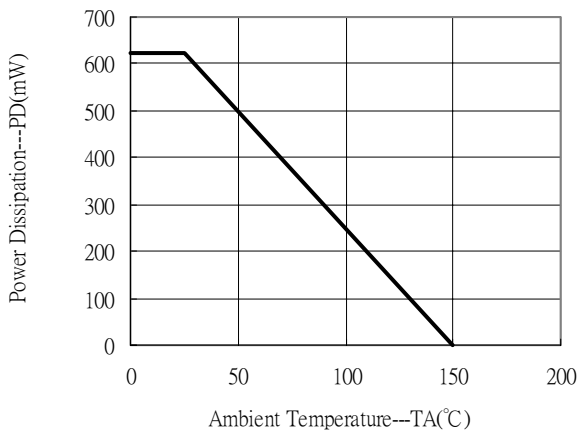
Saturation Voltage vs Collector Current



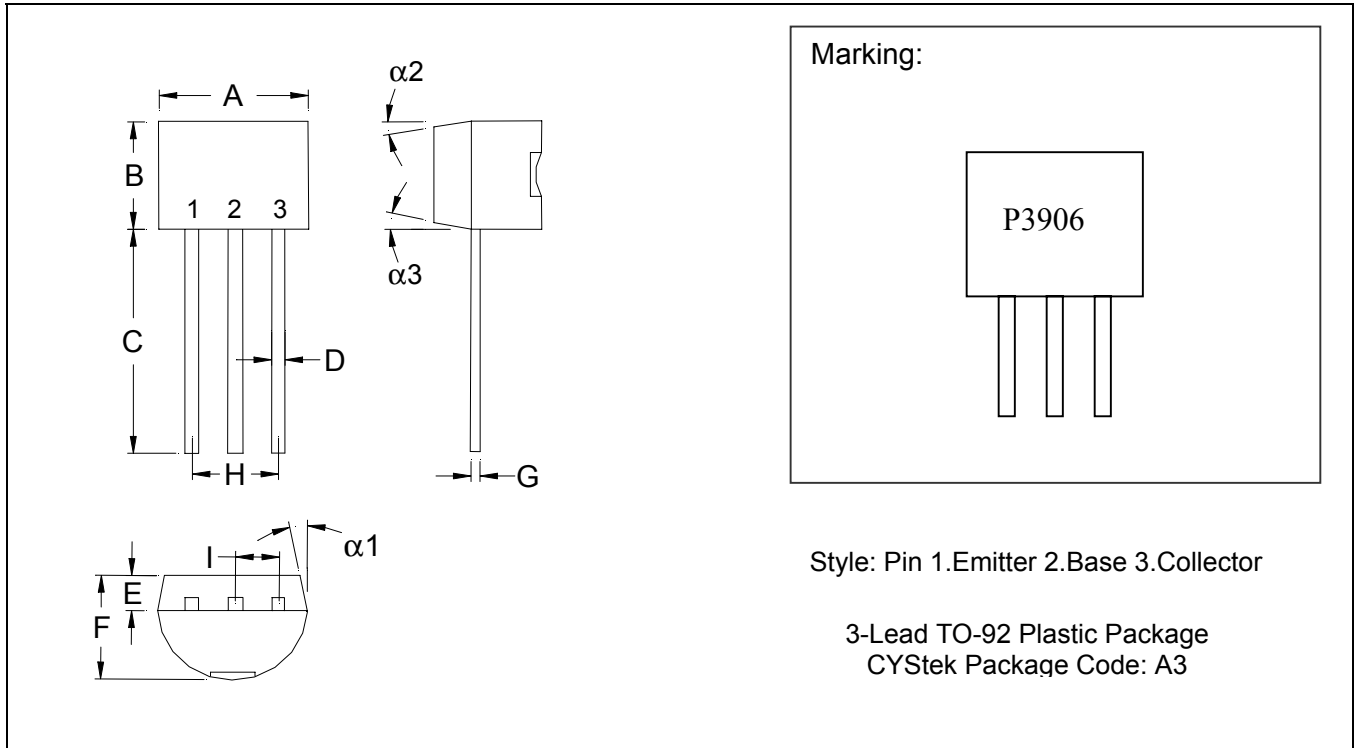
Cutoff Frequency vs Collector Current



Power Derating Curve



TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

Notes: 1. Controlling dimension: millimeters.
 2. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3. If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material:

- Lead: 42 Alloy ; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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