Low V_{CESAT} PNP Epitaxial Planar Transistor

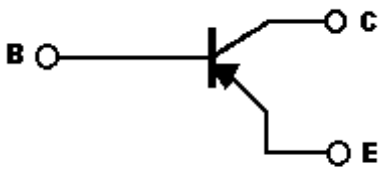
BTP8550N3

Features

- Low $V_{CE(SAT)}$, -0.18V(typically) at I_C=-500mA/I_B=-50mA.
- Complementary to BTN8050N3.

Symbol

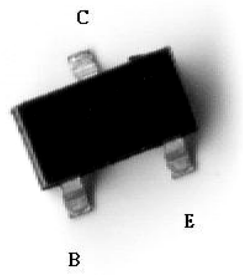
BTP8550N3



B：Base
C：Collector
E：Emitter

Outline

SOT-23



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Power Dissipation	Pd	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-30	-	-	V	I_C=-50μA, I_E=0
BV_{CEO}	-20	-	-	V	I_C=-1mA, I_B=0
BV_{EBO}	-5	-	-	V	I_E=-50μA, I_C=0
I_{CBO}	-	-	-500	nA	V_{CB}=-20V, I_E=0
I_{EBO}	-	-	-500	nA	V_{EB}=-4V, I_C=0
*$V_{CE(sat)}$ 1	-	-	-0.3	V	I_C=-400mA, I_B=-20mA
*$V_{CE(sat)}$ 2	-	-0.18	-0.4	V	I_C=-500mA, I_B=-50mA
*$V_{BE(on)}$	-	-	-1	V	V_{CE}=-1V, I_C=-150mA
*h_{FE} 1	100	-	500	-	V_{CE}=-1V, I_C=-150mA
*h_{FE} 2	80	-	-	-	V_{CE}=-3V, I_C=-800mA
f_T	-	150	-	MHz	V_{CE}=-5V, I_C=-50mA, f=100MHz
Cob	-	15	-	pF	V_{CB}=-10V, f=1MHz

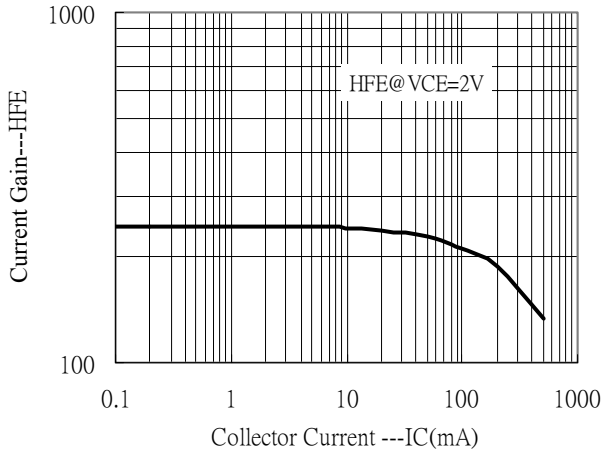
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE} 1

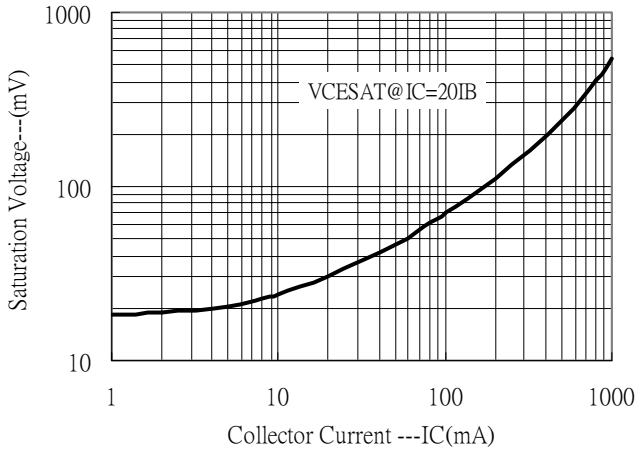
Rank	C	D	E
Range	100~200	150~300	250~500

Characteristic Curves

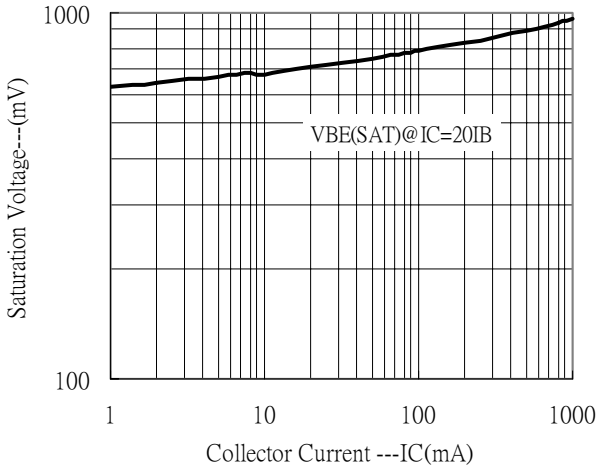
Current Gain vs Collector Current



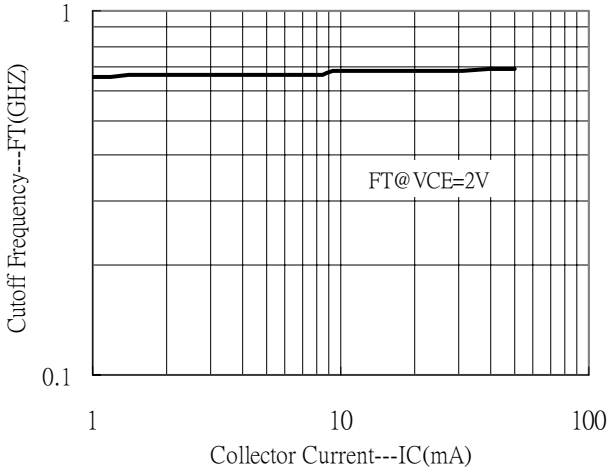
Saturation Voltage vs Collector Current



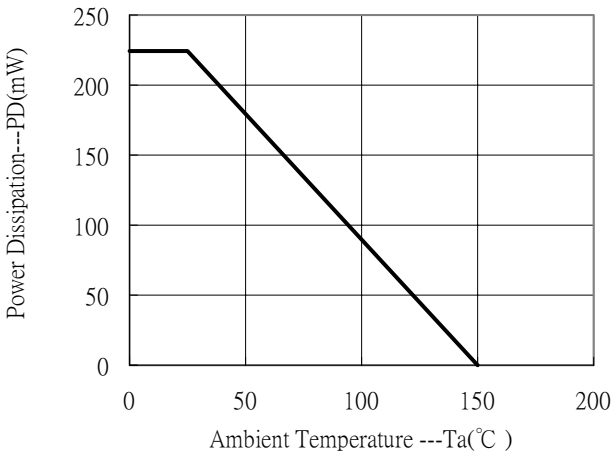
Saturation Voltage vs Collector Current



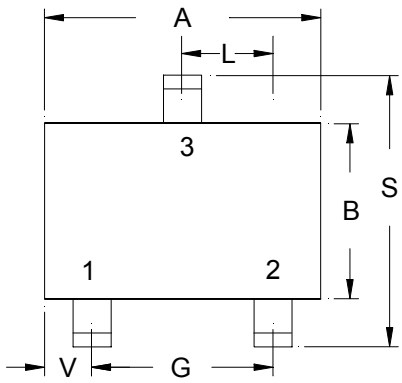
Cutoff Frequency vs Collector Current

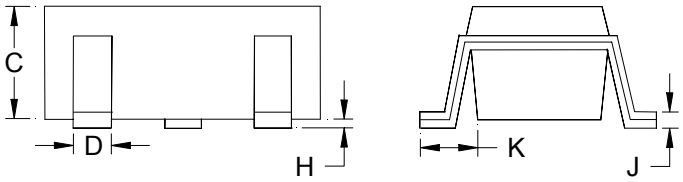


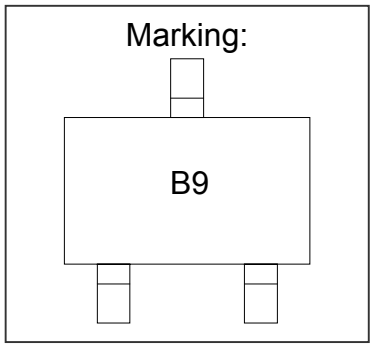
Power Derating Curve



SOT-23 Dimension







3-Lead SOT-23 Plastic
Surface Mounted Package
CYStek Package Code: N3

Style: Pin 1.Base 2.Emitter 3.Collector

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

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