Gentral Purpose NPN Epitaxial Planar Transistor

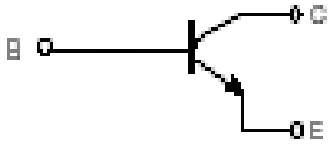
BTNA13A3

Description

- The BTNA14A3 is a darlington amplifier transistor
- Complementary to BTPA63A3.

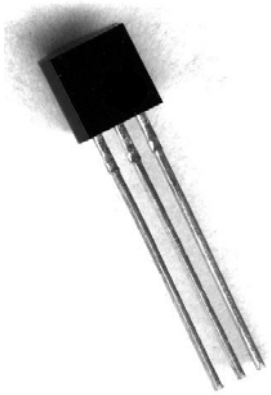
Equivalent Circuit

BTNA13A3



B：Base
C：Collector
E：Emitter

TO-92



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	30	V
Collector-Emitter Voltage	VCES	30	V
Emitter-Base Voltage	VEBO	10	V
Collector Current	IC	0.5	A
Power Dissipation	Pd	625	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

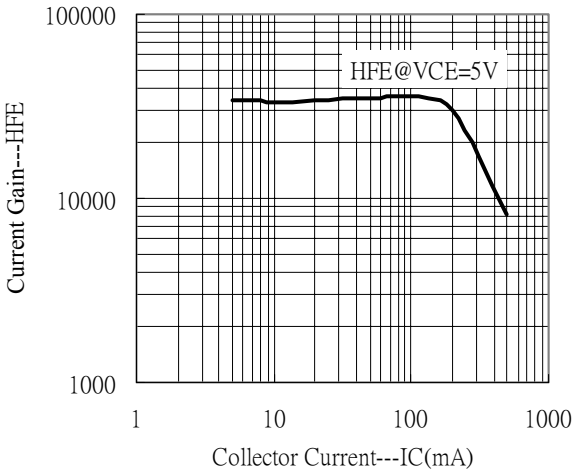
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCES	30	-	-	V	IC=100uA
ICBO	-	-	100	nA	VCE=30V
IEBO	-	-	100	nA	VEB=10V
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
*VBE(on)	-	-	2.0	V	VCE=5V, IC=100mA
*hFE1	5K	-	-		VCE=5V, IC=10mA
*hFE2	10K	-	-		VCE=5V, IC=100mA
fT	125	-	-	MHz	VCE=5V, IC=10mA, f=100MHz

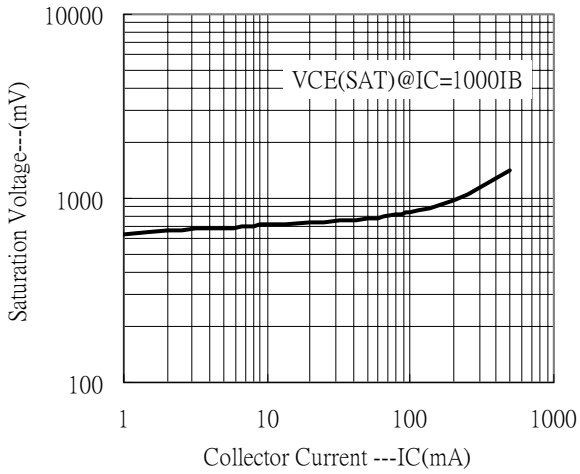
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Characteristic Curves

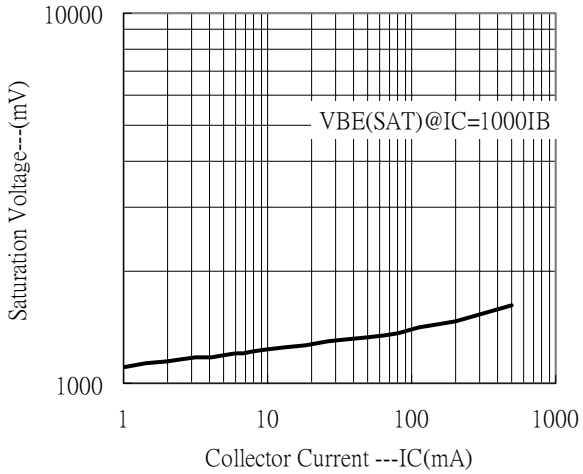
Current Gain vs Collector Current



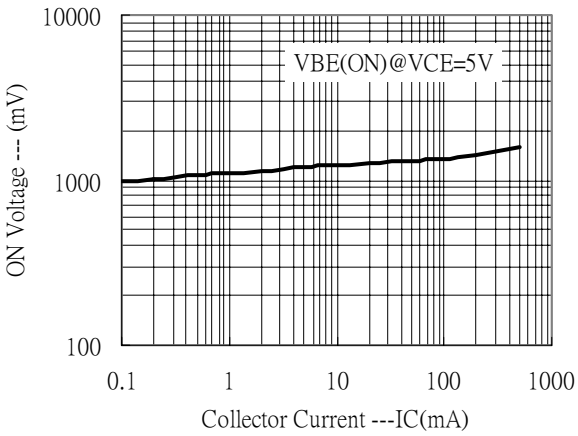
Saturation Voltage vs Collector Current



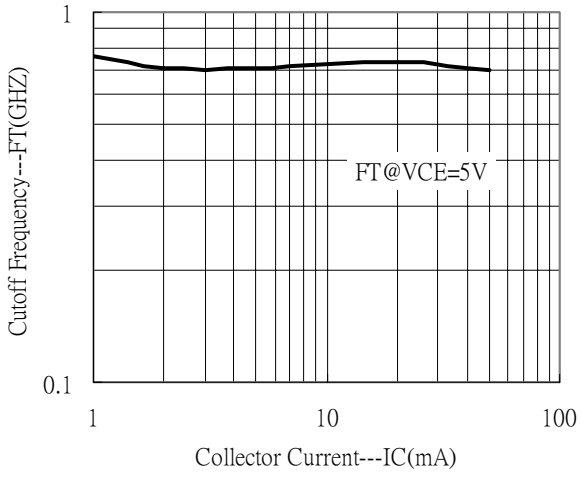
Saturation Voltage vs Collector Current



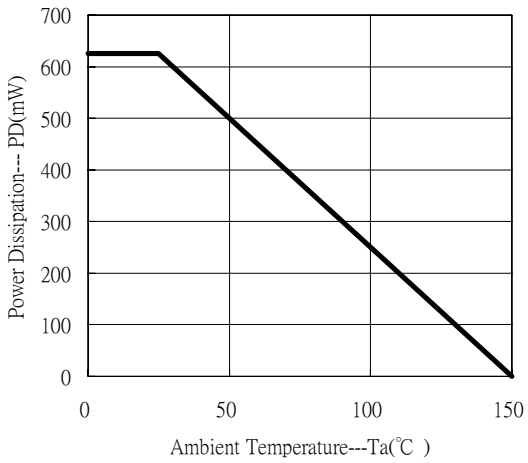
ON Voltage vs Collector Current



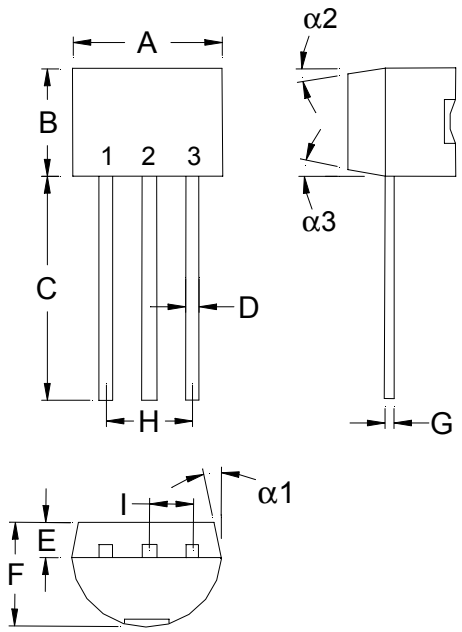
Cutoff Frequency vs Collector Current



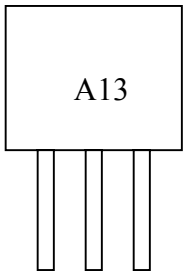
Power Derating Curve



TO-92 Dimension



Marking:



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

3-Lead TO-92 Plastic Package
CYStek Package Code: A3

*: 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	α1	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	α2	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	α3	-	*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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