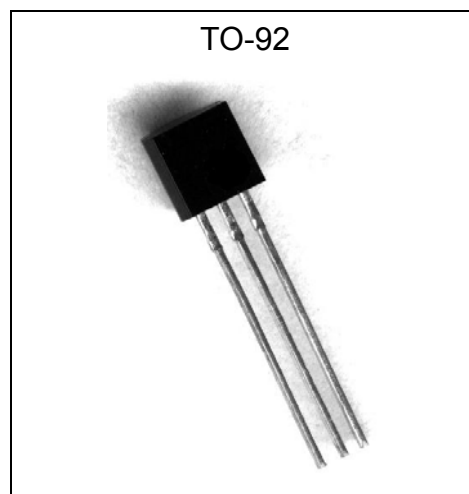
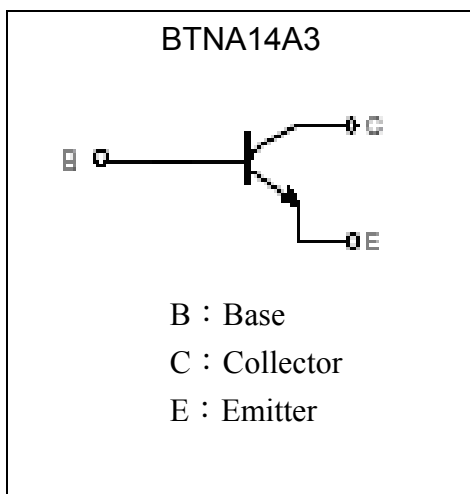


General Purpose NPN Epitaxial Planar Transistor

BTNA14A3

Description

- The BTNA14A3 is a darlington amplifier transistor
- Complementary to BTPA64A3.

Equivalent Circuit

Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$)

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



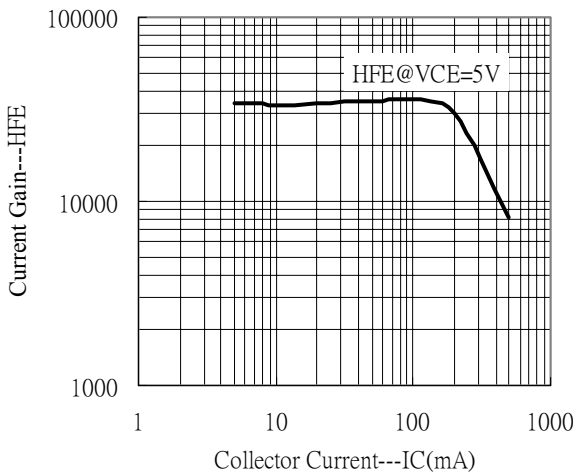
Characteristics (Ta=25°C)

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	10K	-	-		VCE=5V, IC=10mA
*hFE2	20K	-	-		VCE=5V, IC=100mA
fT	125	-	-	MHz	VCE=5V, IC=10mA, f=100MHz

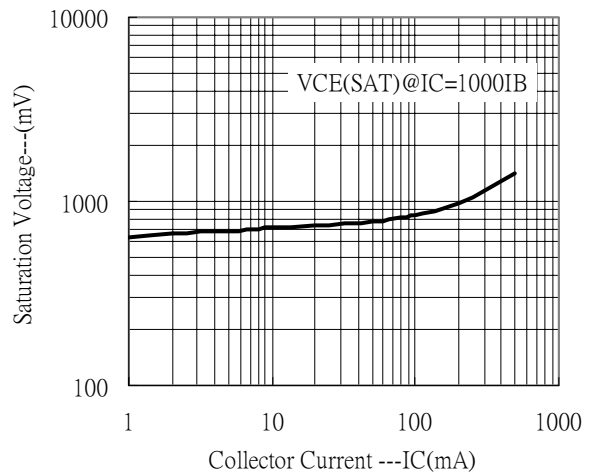
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Characteristic Curves

Current Gain vs Collector Current

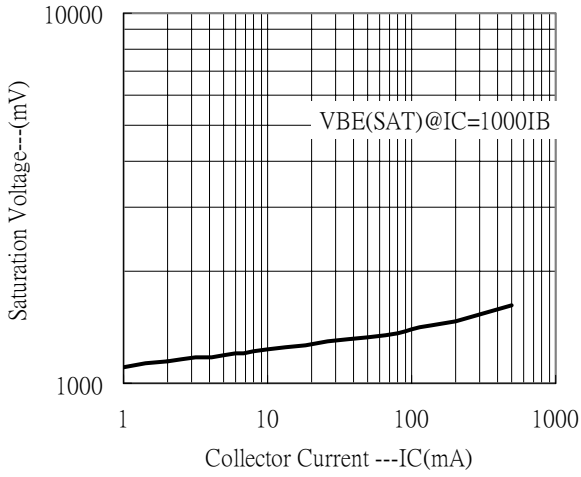


Saturation Voltage vs Collector Current

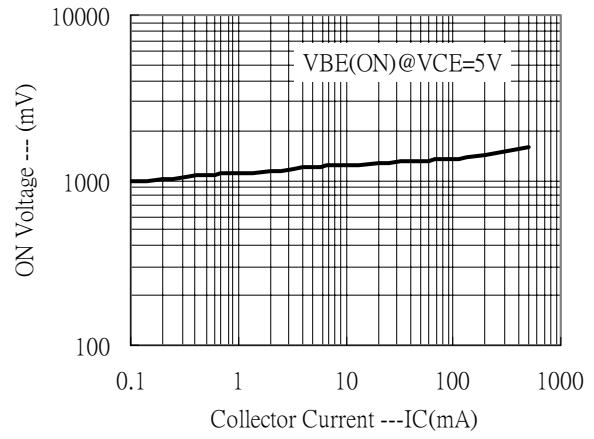




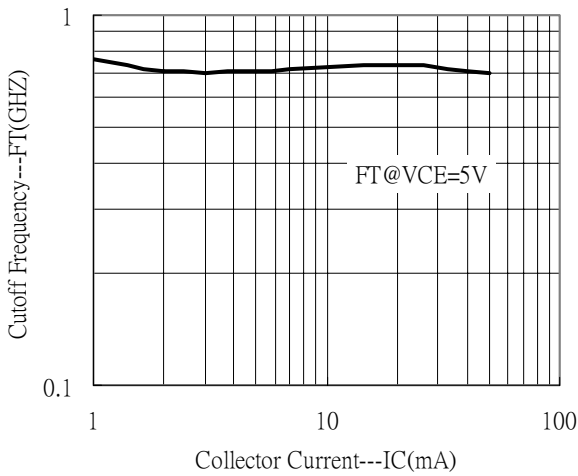
Saturation Voltage vs Collector Current



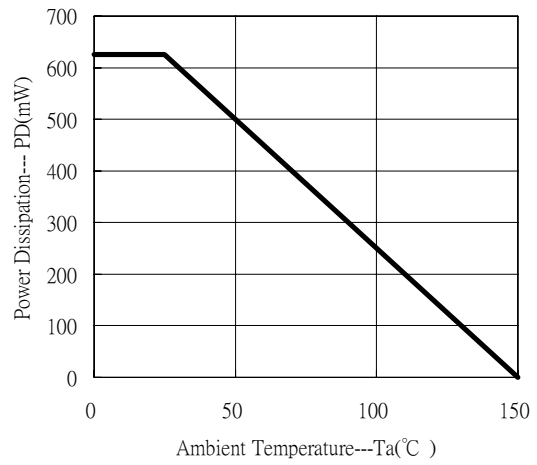
ON Voltage vs Collector Current



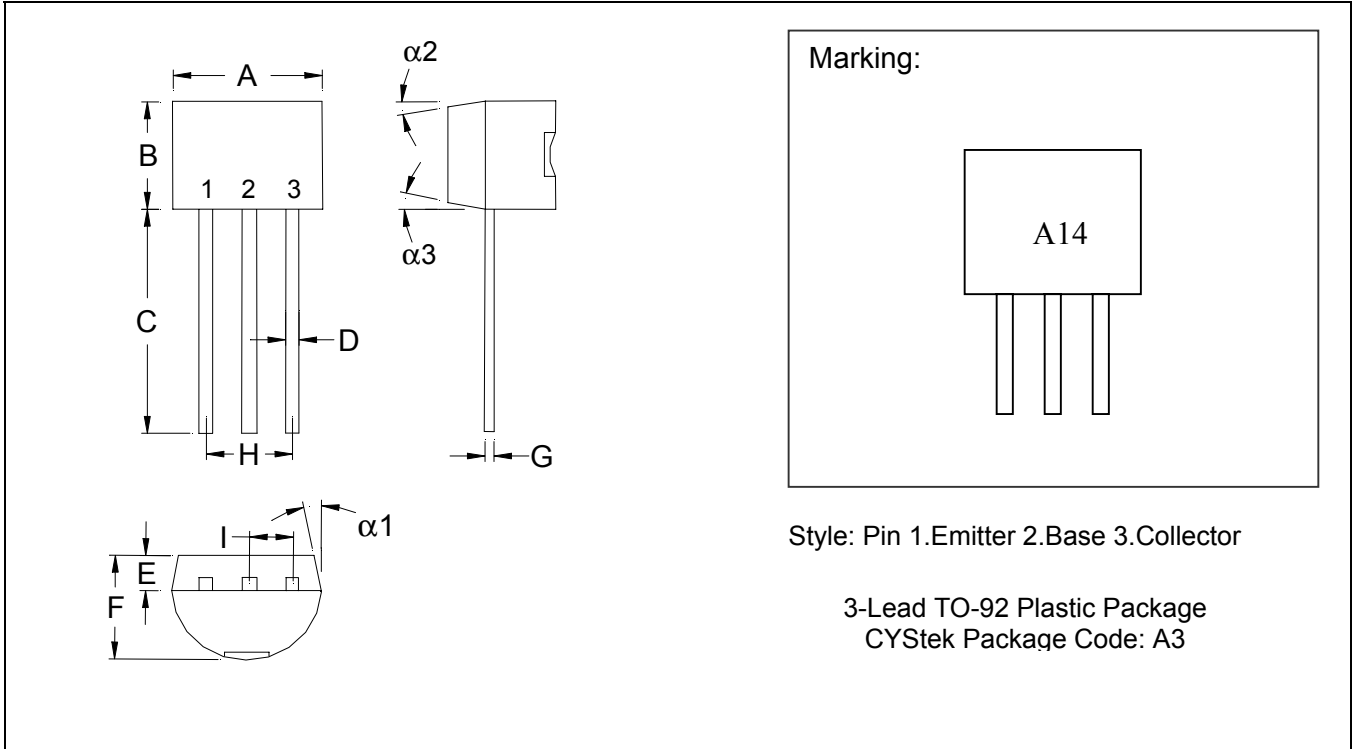
Cutoff Frequency vs Collector Current



Power Derating Curve



TO-92 Dimension



*: 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

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of CYStek.
- CYStek reserves the right to make changes to its products without notice.
- CYStek **semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- CYStek assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.