Low $V_{CE(SAT)}$ PNP Epitaxial Planar Transistor

BTB1426A3

Description

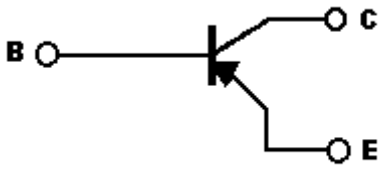
The BTB1426A3 is designed especially for use in strobo flash and medium power amplifier applications.

Features

- High DC current gain and excellent h_{FE} linearity.
- Low Saturation Voltage
  $V_{CE(sat)}$=-0.5V(max)(I_C=-2A, I_B=-100mA).

Symbol

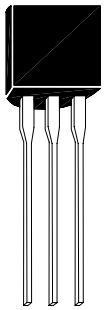
BTB1426A3



B：Base
C：Collector
E：Emitter

Outline

TO-92



E C B

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	-20	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current(DC)	I_C	-3	A
Collector Current(Pulsed)(Note 1)	I_{CP}	-5 (Note)	
Power Dissipation	Pd	750	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	167	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Note : Single pulse, Pw≤10ms, Duty Cycle≤2%.

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-20	-	-	V	I_C=-50μA
BV_{CEO}	-20	-	-	V	I_C=-1mA
BV_{EBO}	-6	-	-	V	I_E=-50μA
I_{CBO}	-	-	-0.1	μA	V_{CB}=-20V
I_{EBO}	-	-	-0.1	μA	V_{EB}=-5V
*$V_{CE(sat)}$	-	-	-0.5	V	I_C=-2A, I_B=-0.1A
*h_{FE}	120	-	820	-	V_{CE}=-2V, I_C=-100mA
f_T	-	240	-	MHz	V_{CE}=-2V, I_C=-500mA, f=100MHz
Cob	-	35	-	pF	V_{CB}=-10V, I_E=0A,f=1MHz

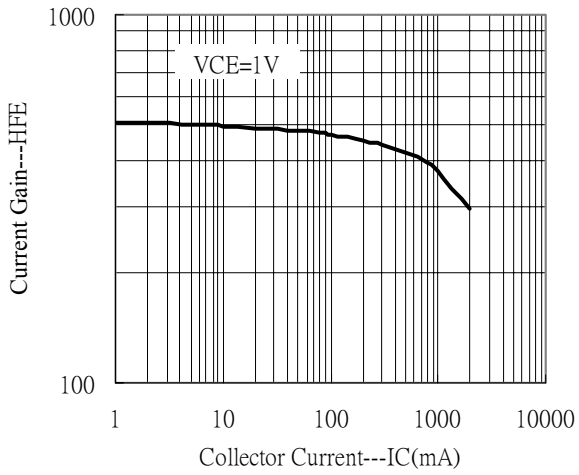
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE}

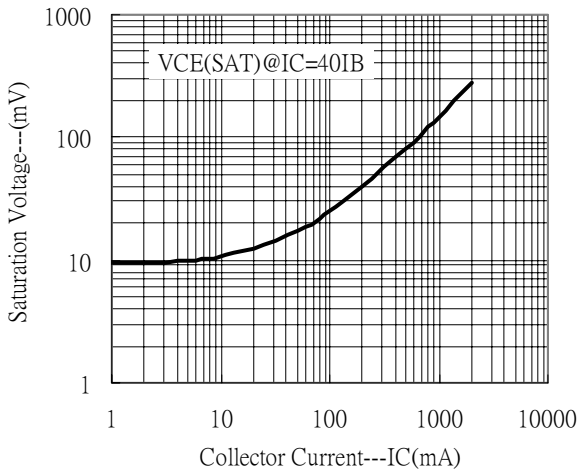
Rank	Q	R	S	T
Range	120~270	180~390	270~560	390~820

Characteristic Curves

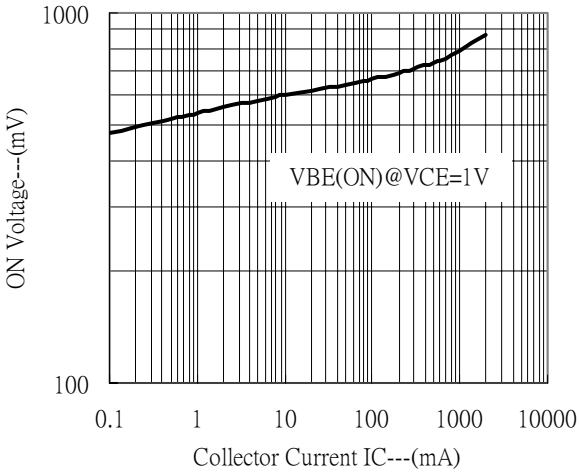
Current Gain vs Collector Current



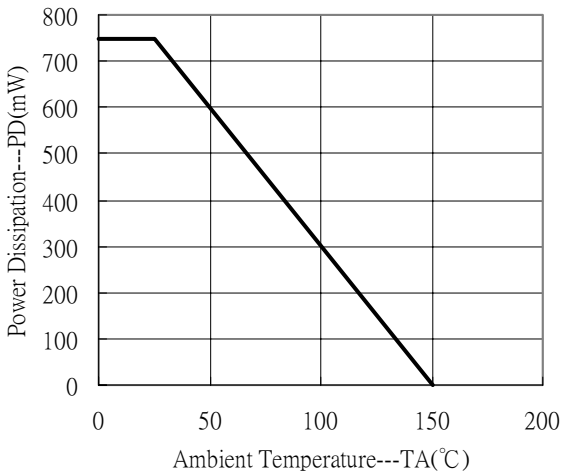
Saturation Voltage vs Collector Current



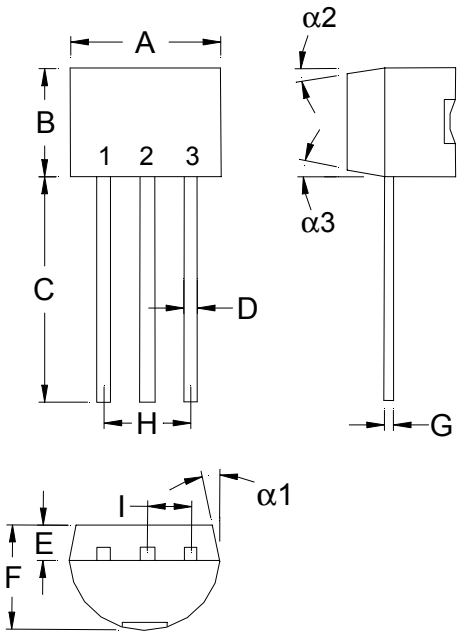
ON Voltage vs Collector Current



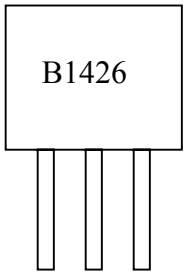
Power Derating Curve



TO-92 Dimension



Marking:



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

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

