Low Vcesat PNP Epitaxial Planar Transistor

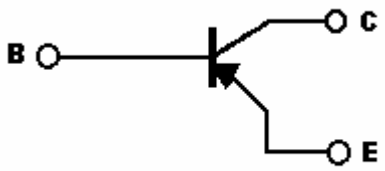
BTB772SA3

Features

- Low $V_{CE(sat)}$,typically -0.3 V at I_C / I_B = -2A / -0.1A
- Excellent current gain characteristics
- Complementary to BTD882SA3
- Pb-free package

Symbol

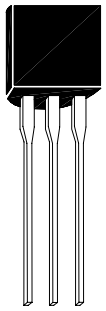
BTB772SA3



B：Base
C：Collector
E：Emitter

Outline

TO-92



E C B

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C(DC)	-3	A
	I_C(pulse)	-7 (Note)	A
Power Dissipation	Pd	750	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Note : Single Pulse Pw≦350μs, Duty≦2%.

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-50	-	-	V	I_C=-100μA, I_E=0
BV_{CEO}	-50	-	-	V	I_C=-1mA, I_B=0
BV_{EBO}	-5	-	-	V	I_E=-50μA, I_C=0
I_{CBO}	-	-	-1	μA	V_{CB}=-40V, I_E=0
I_{CEO}	-	-	-1	μA	V_{CE}=-30V, I_B=0
I_{EBO}	-	-	-1	μA	V_{EB}=-5V, I_C=0
*$V_{CE(sat)}$	-	-	-0.3	V	I_C=-400mA, I_B=-20mA
*$V_{CE(sat)}$	-	-0.3	-0.5	V	I_C=-2A, I_B=-0.1A
*$V_{BE(sat)}$	-	-1	-2	V	I_C=-2A, I_B=-0.2A
*$h_{FE}1$	100	-	-	-	V_{CE}=-2V, I_C=-20mA
*$h_{FE}2$	160	-	-	-	V_{CE}=-2V, I_C=-100mA
*$h_{FE}3$	160	-	500	-	V_{CE}=-2V, I_C=-500mA
*$h_{FE}4$	100	-	-	-	V_{CE}=-2V, I_C=-1A
f_T	-	80	-	MHz	V_{CE}=-5V, I_C=-0.1A, f=100MHz
Cob	-	55	-	pF	V_{CB}=-10V, f=1MHz

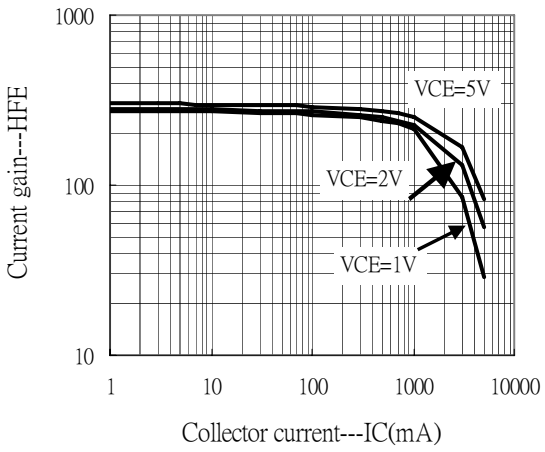
*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE} 3

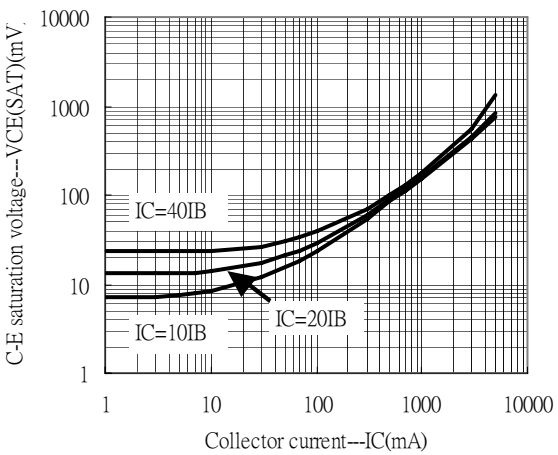
Rank	P	E
Range	160~320	250~500

Characteristic Curves

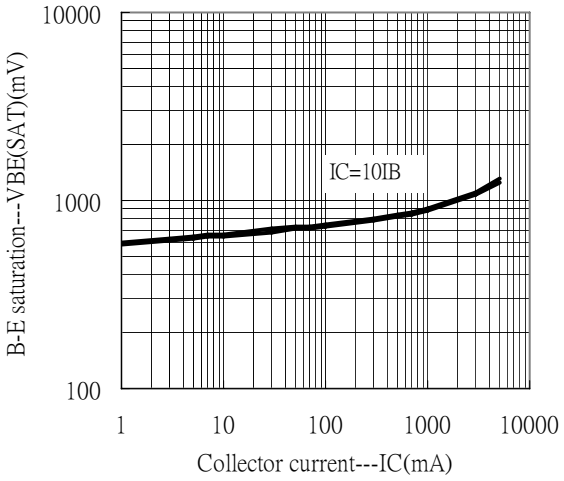
Current gain vs Collector current



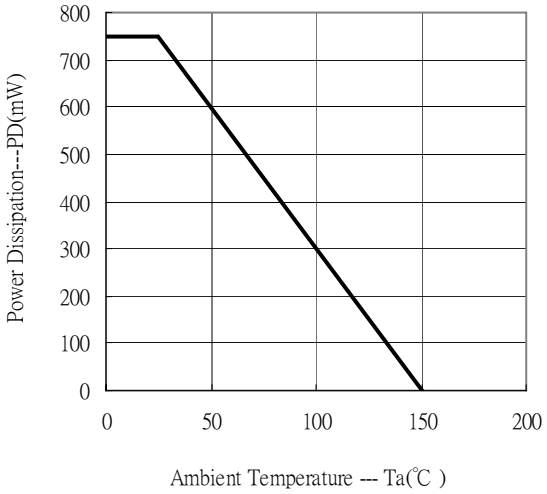
C-E saturation voltage vs Collector current



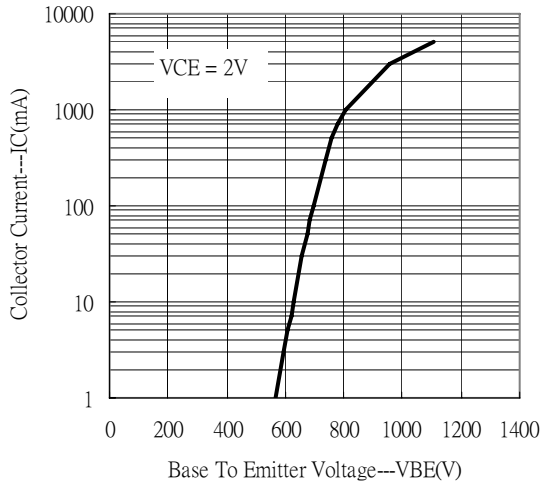
B-E saturation voltage vs Collector current



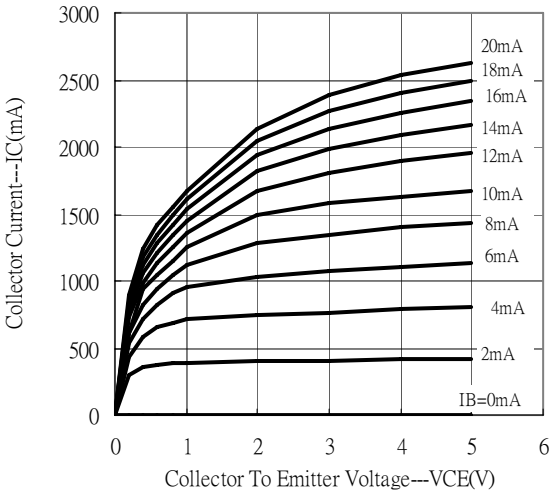
Power Derating Curve



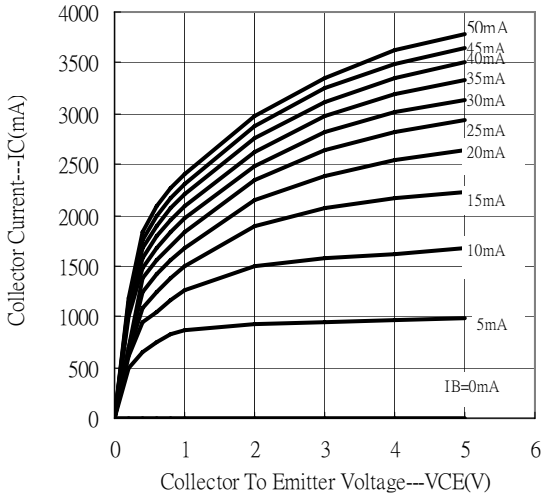
Grounded Emitter Propagation Characteristics



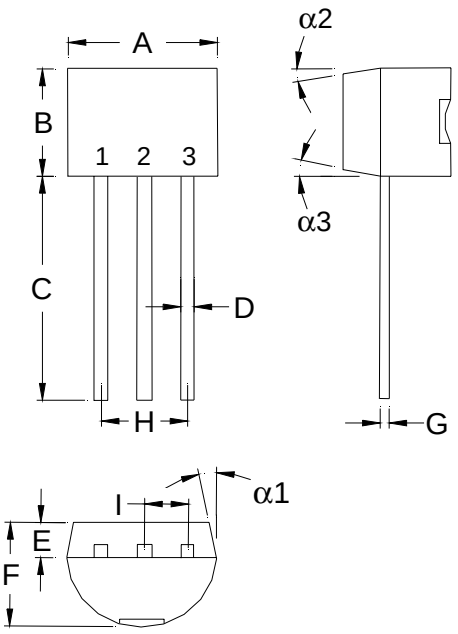
Grounded Emitter Output Characteristics



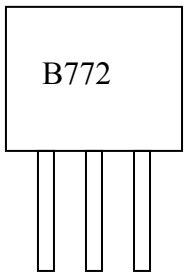
Grounded Emitter Output Characteristics



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: KFC ; pure tin plated
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0