

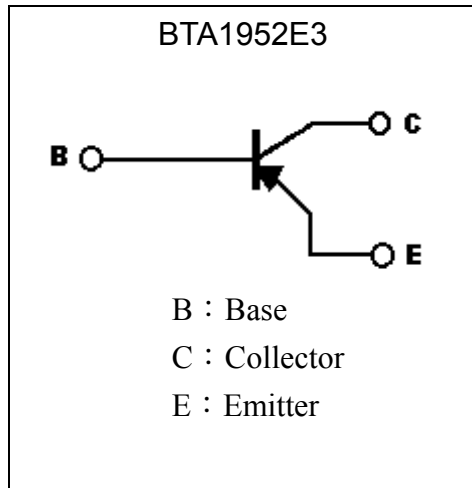
Low Vcesat PNP Epitaxial Planar Transistor

BTA1952E3

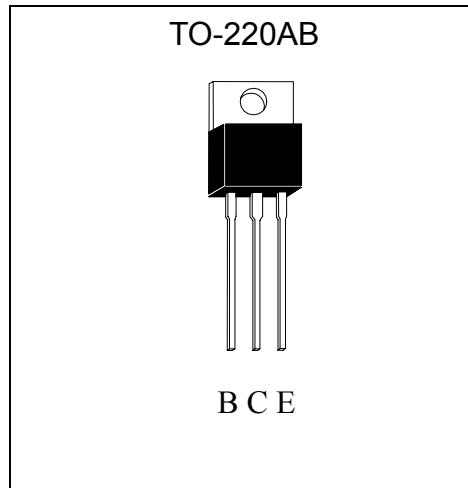
Features

- Low VCE(sat), VCE(sat)=-0.5 V (typical), at IC / IB = -3A / -0.15A
- Excellent DC current gain characteristics
- Wide SOA

Symbol



Outline



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CBO}	-100	V
Collector-Emitter Voltage	V _{CEO}	-80	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _{C(DC)}	-5	A
	I _{C(Pulse)}	-8 *1	
Base Current	I _B	-1	A
Power Dissipation	P _d (T _A =25°C)	2	W
	P _d (T _C =25°C)	40	
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

Note : *1. Single Pulse Pw=10ms

**Characteristics** (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CEO}	-80	-	-	V	I _C =-10mA, I _B =0
I _{CBO}	-	-	-10	μA	V _{CB} =-100V, I _E =0
I _{EBO}	-	-	-10	μA	V _{EB} =-5V, I _C =0
*V _{CE(sat)}	-	-	-0.6	V	I _C =-1A, I _B =-10mA
*V _{CE(sat)}	-	-	-0.8	V	I _C =-3A, I _B =-150mA
*V _{CE(sat)}	-	-	-1.3	V	I _C =-4A, I _B =-200mA
*V _{BE(sat)}	-	-	-1.5	V	I _C =-3A, I _B =-150mA
*h _{FE 1}	100	-	-	-	V _{CE} =-3V, I _C =-500mA
*h _{FE 2}	120	-	390	-	V _{CE} =-2V, I _C =-1A
f _T	10	-	-	MHz	V _{CE} =-4V, I _C =-1A, f=1MHz

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

Classification of hFE 2

Rank	Q	R
Range	120~270	180~390

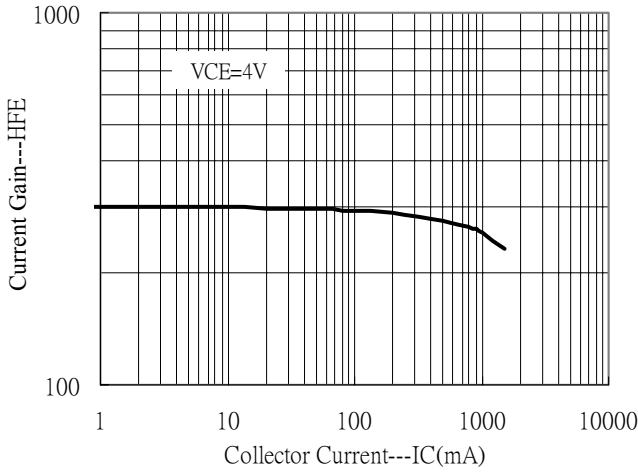
Ordering Information

Device	Package	Shipping
BTA1952E3	TO-220AB	Tube

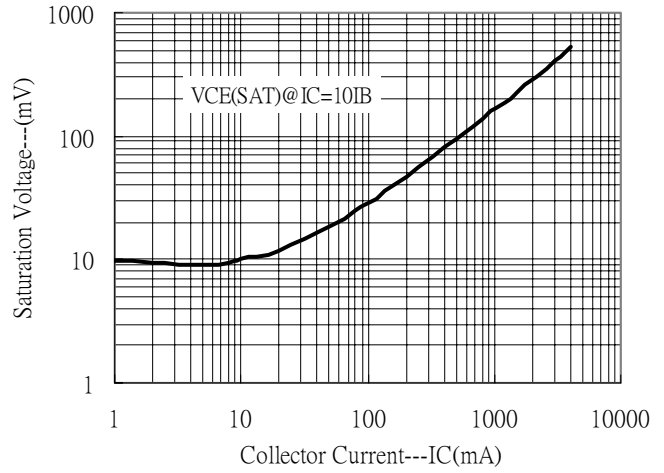


Characteristic Curves

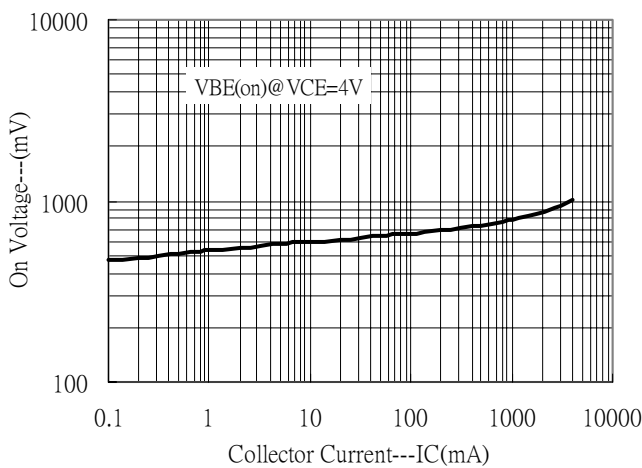
Current Gain vs Collector Current



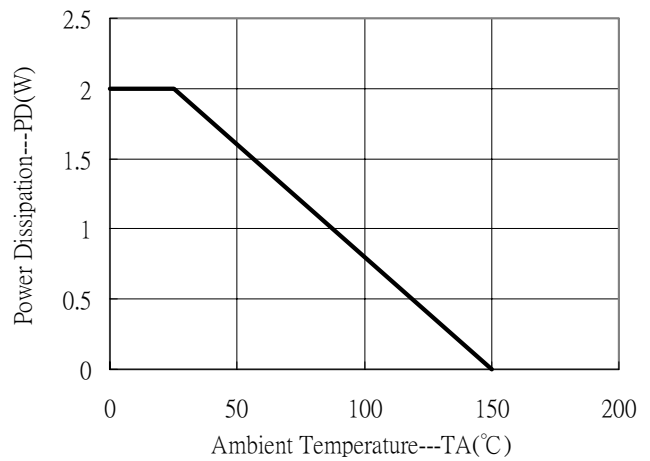
Saturation Voltage vs Collector Current



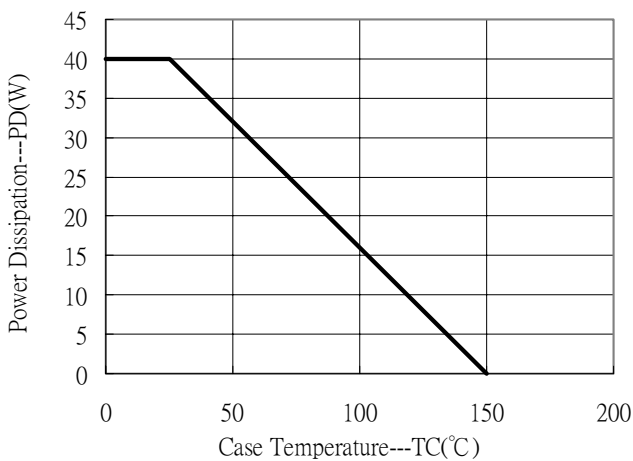
On Voltage vs Collector Current



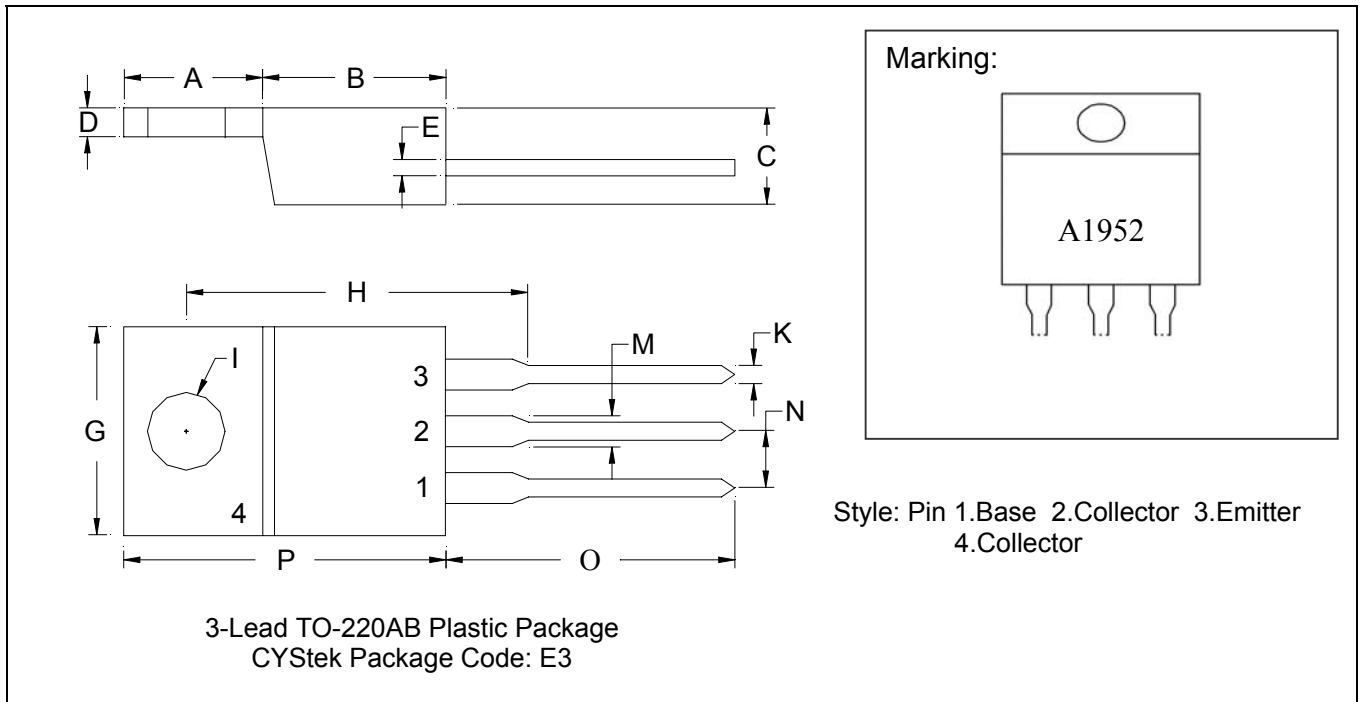
Power Derating Curve



Power Derating Curve



TO-220AB Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.2197	0.2949	5.58	7.49	I	-	*0.1508	-	*3.83
B	0.3299	0.3504	8.38	8.90	K	0.0295	0.0374	0.75	0.95
C	0.1732	0.185	4.40	4.70	M	0.0449	0.0551	1.14	1.40
D	0.0453	0.0547	1.15	1.39	N	-	*0.1000	-	*2.54
E	0.0138	0.0236	0.35	0.60	O	0.5000	0.5618	12.70	14.27
G	0.3803	0.4047	9.66	10.28	P	0.5701	0.6248	14.48	15.87
H	-	*0.6398	-	*16.25					

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.