High Voltage NPN Epitaxial Planar Transistor

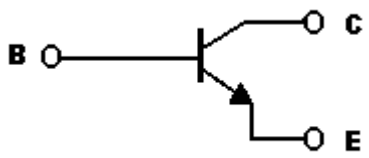
BTC4621K3

Features

- High breakdown voltage. (BV_{CEO}=350V)
- Low saturation voltage, typically V_{CE}(sat) =0.1V at I_C/I_B=10mA/1mA.
- Pb-free package

Symbol

BTC4621K3



B：Base
C：Collector
E：Emitter

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	350	V
Collector-Emitter Voltage	V_{CEO}	350	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	100	mA
Collector Current (Pulse)	I_{CP}	200	
Base Current	I_B	50	mA
Power Dissipation (T_A=25℃)	P_D	1	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	350	-	-	V	I_C=50μA, I_E=0
BV_{CEO}	350	-	-	V	I_C=1mA, I_B=0
BV_{EBO}	6	-	-	V	I_E=50μA, I_C=0
I_{CBO}	-	-	0.1	μA	V_{CB}=300V, I_E=0
I_{EBO}	-	-	0.1	μA	V_{EB}=6V, I_C=0
*$V_{CE(sat)}$	-	0.1	0.6	V	I_C=20mA, I_B=2mA
*$V_{BE(sat)}$	-		1	V	I_C=20mA, I_B=2mA
h_{FE}	100	-	320	-	V_{CE}=10V, I_C=10mA
f_T	-	70	-	MHz	V_{CE}=30V, I_C=10mA, f=10MHz
Cob	-	2.6	-	pF	V_{CB}=30V, f=1MHz

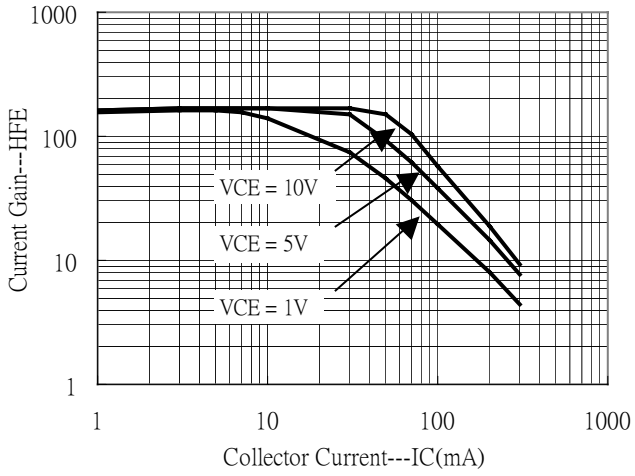
*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE}

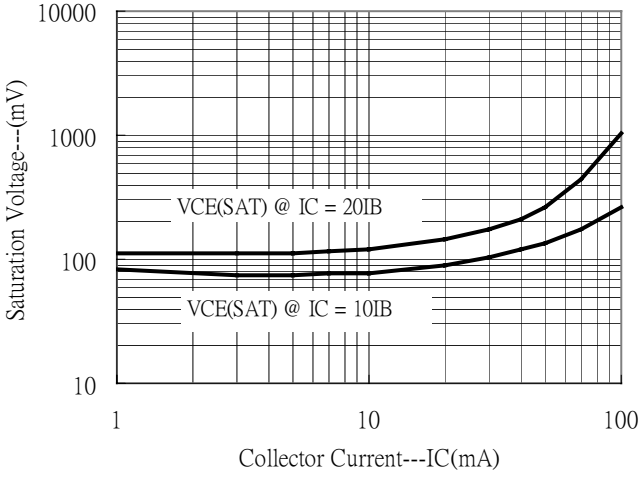
Rank	E	F
Range	100~200	160~320

Characteristic Curves

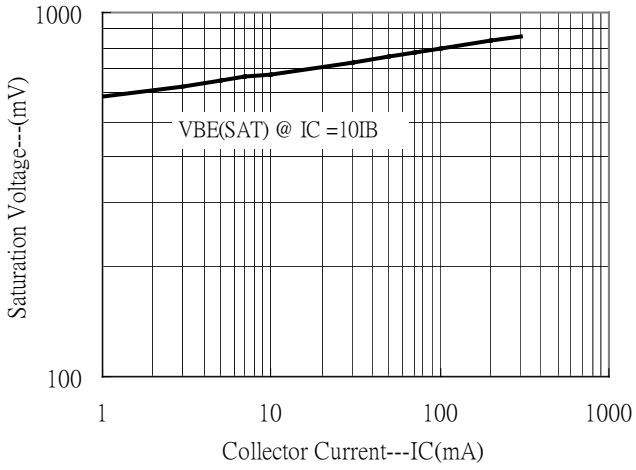
Current Gain vs Collector Current



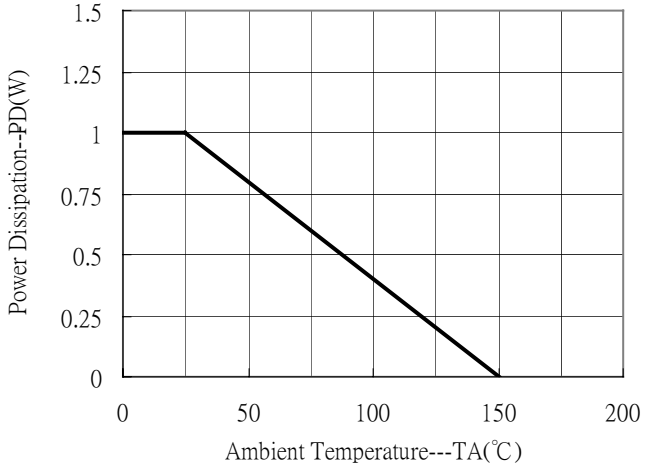
Saturation Voltage vs Collector Current



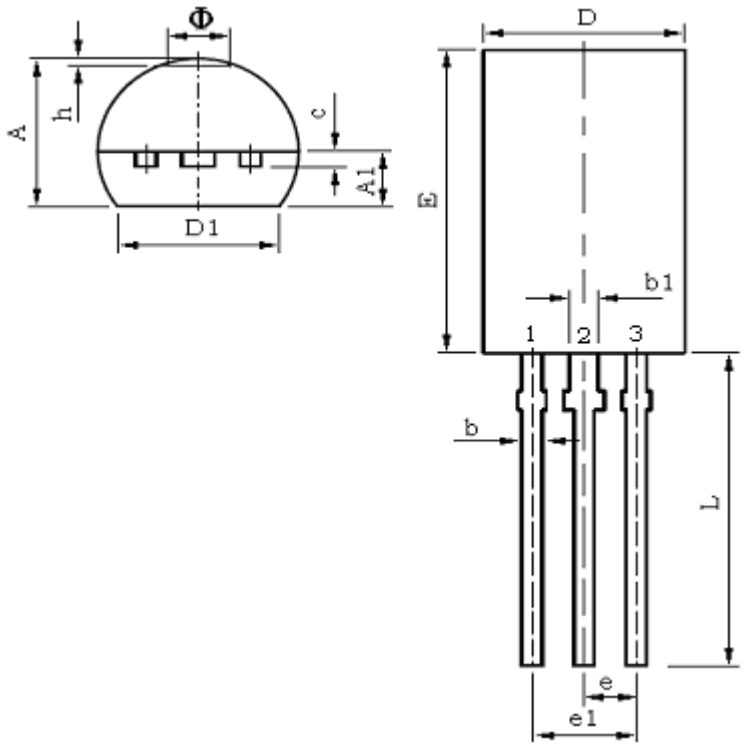
Saturation Voltage vs Collector Current



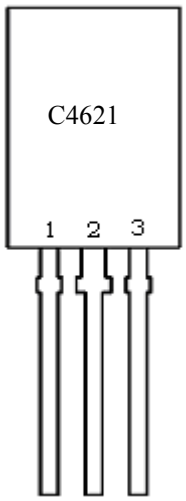
Power Derating Curve



TO-92L Dimension



Marking:



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

3-Lead TO-92L Plastic Package
CYStek Package Code: K3

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.146	0.161	3.700	4.100	E	0.307	0.323	7.800	8.200
A1	0.050	0.062	1.280	1.580	e	*0.050		*1.270	
b	0.014	0.022	0.350	0.550	e1	0.096	0.104	2.440	2.640
b1	0.024	0.031	0.600	0.800	L	0.543	0.559	13.800	14.200
c	0.014	0.018	0.350	0.450	Φ	-	0.063	-	1.600
D	0.185	0.201	4.700	5.100	h	0.000	0.012	0.000	0.300
D1	0.157	-	4.000	-					

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