

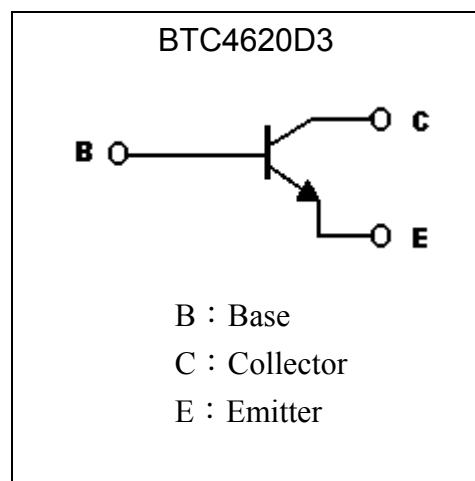
High Voltage NPN Epitaxial Planar Transistor

BTC4620D3

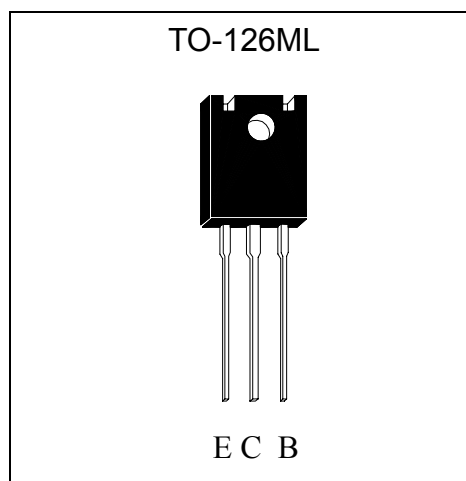
Features

- High breakdown voltage. ($BV_{CEO}=350V$)
- Low saturation voltage, typically $V_{CE(sat)}=0.1V$ at $I_C/I_B=10mA/1mA$.
- Complementary to BTA1776D3
- Pb-free package

Symbol



Outline



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

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	350	V
Collector-Emitter Voltage	V_{CEO}	350	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	100	mA
Collector Current (Pulse)	I_{CP}	200	
Power Dissipation ($T_A=25^{\circ}C$)	P_D	1.2	W
Power Dissipation ($T_C=25^{\circ}C$)		7	
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	350	-	-	V	I _C =50μA, I _E =0
BV _{CEO}	350	-	-	V	I _C =1mA, I _B =0
BV _{EBO}	5	-	-	V	I _E =50μA, I _C =0
I _{CB0}	-	-	0.1	μA	V _{CB} =200V, I _E =0
I _{EBO}	-	-	0.1	μA	V _{EB} =4V, 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}	40	-	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

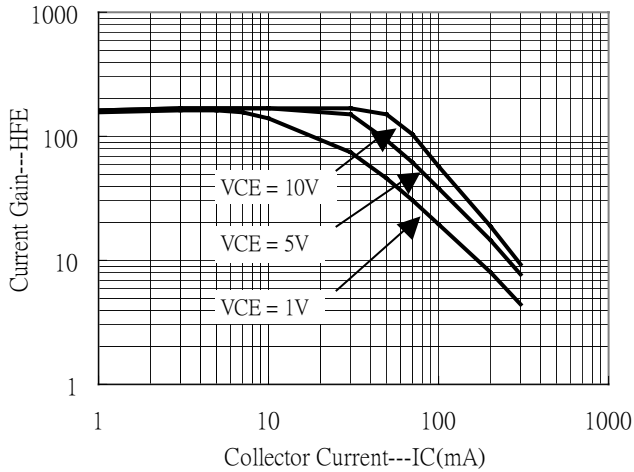
*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE}

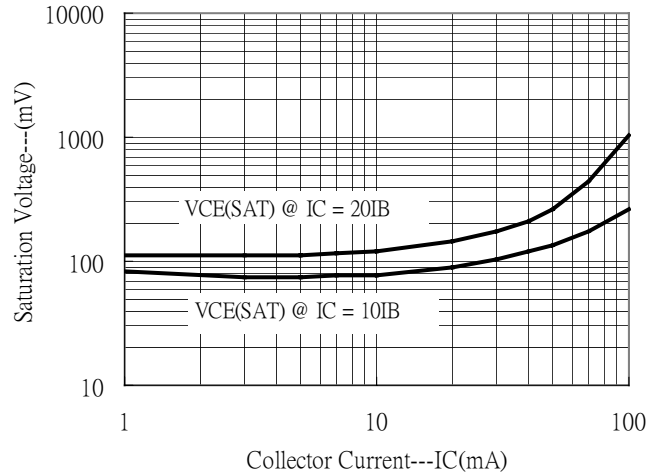
Rank	C	D	E	F
Range	40~80	60~120	100~200	160~320

Characteristic Curves

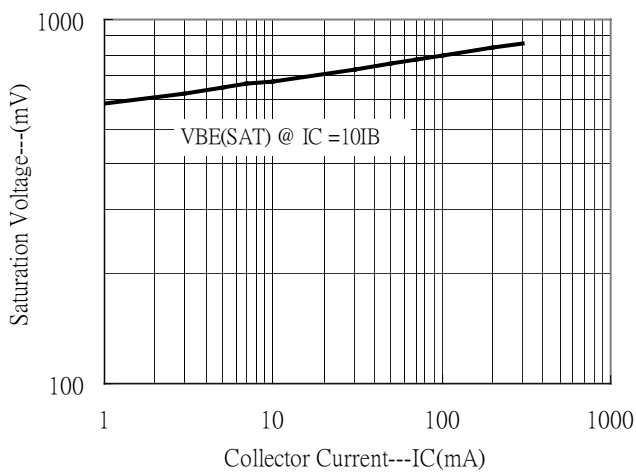
Current Gain vs Collector Current



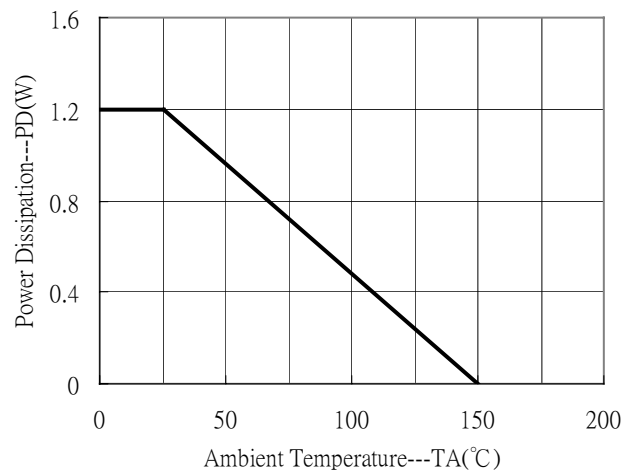
Saturation Voltage vs Collector Current



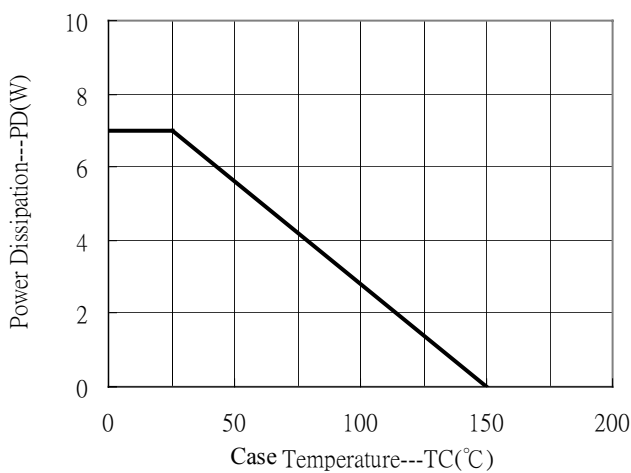
Saturation Voltage vs Collector Current



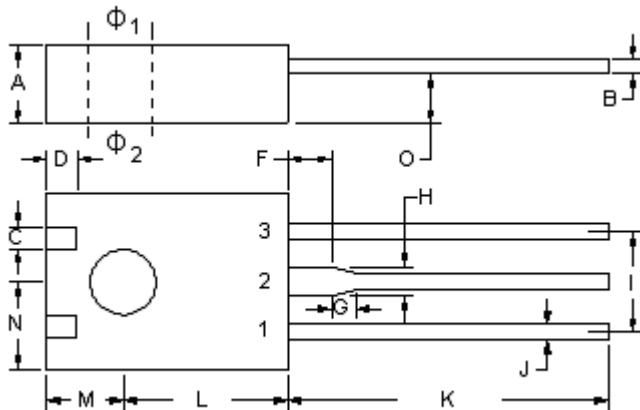
Power Derating Curve



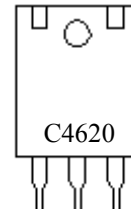
Power Derating Curve



TO-126ML Dimension



Marking:



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

3-Lead TO-126ML Plastic Package
 CYStek Package Code: D3

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1356	0.1457	3.44	3.70	H	0.0462	0.0562	1.17	1.42
B	0.0170	0.0272	0.43	0.69	I	-	*0.1795	-	*4.56
C	0.0344	0.0444	0.87	1.12	J	0.0268	0.0331	0.68	0.84
D	0.0501	0.0601	1.27	1.52	K	0.5512	0.5906	14.00	15.00
Φ ₁	0.1220	0.1299	3.10	3.30	L	0.2903	0.3003	7.37	7.62
Φ ₂	0.1181	0.1260	3.00	3.20	M	0.1378	0.1478	3.50	3.75
F	0.0737	0.0837	1.87	2.12	N	0.1525	0.1625	3.87	4.12
G	0.0294	0.0494	0.74	1.25	O	0.0740	0.0842	1.88	2.14

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

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