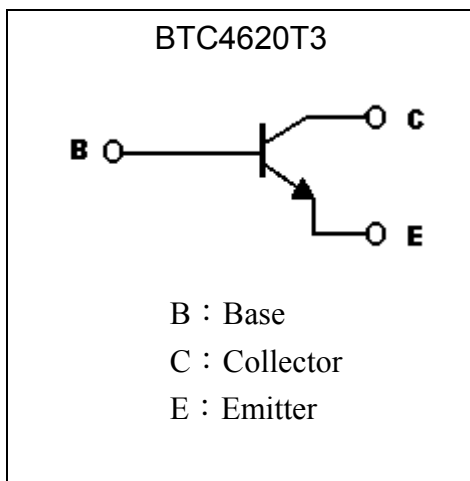
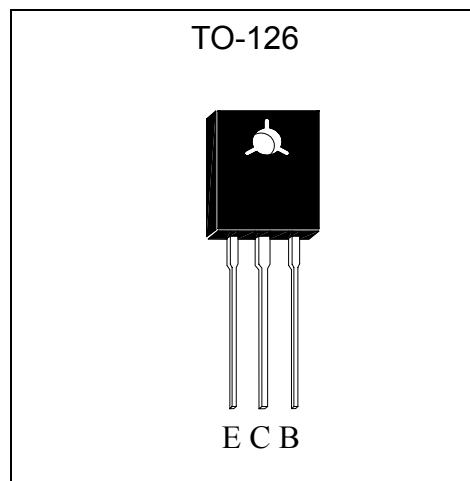


**High Voltage NPN Epitaxial Planar Transistor**

# BTC4620T3

**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 BTA1776T3

**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 <sub>CB0</sub>	350	-	-	V	I <sub>C</sub> =50μA, I <sub>E</sub> =0
BV <sub>CE0</sub>	350	-	-	V	I <sub>C</sub> =1mA, I <sub>B</sub> =0
BV <sub>EB0</sub>	5	-	-	V	I <sub>E</sub> =50μA, I <sub>C</sub> =0
I <sub>CB0</sub>	-	-	0.1	μA	V <sub>CB</sub> =200V, I <sub>E</sub> =0
I <sub>EB0</sub>	-	-	0.1	μA	V <sub>EB</sub> =4V, I <sub>C</sub> =0
*V <sub>CE(sat)</sub>	-	0.1	0.6	V	I <sub>C</sub> =20mA, I <sub>B</sub> =2mA
*V <sub>BE(sat)</sub>	-	-	1	V	I <sub>C</sub> =20mA, I <sub>B</sub> =2mA
h <sub>FE</sub>	80	-	200	-	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA
f <sub>T</sub>	-	70	-	MHz	V <sub>CE</sub> =30V, I <sub>C</sub> =10mA, f=10MHz
Cob	-	2.6	-	pF	V <sub>CB</sub> =30V, f=1MHz

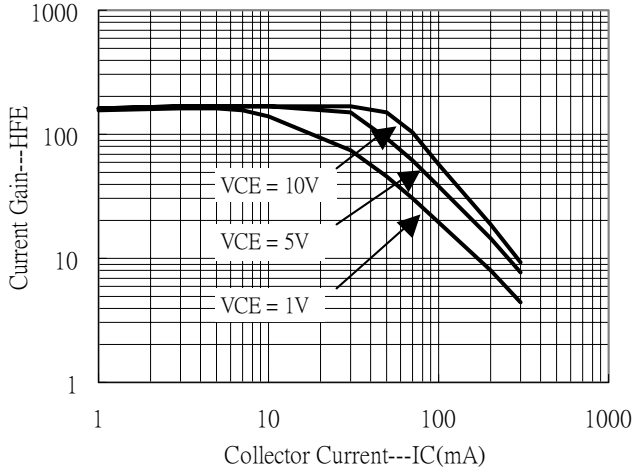
\*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

**Classification Of h<sub>FE</sub>**

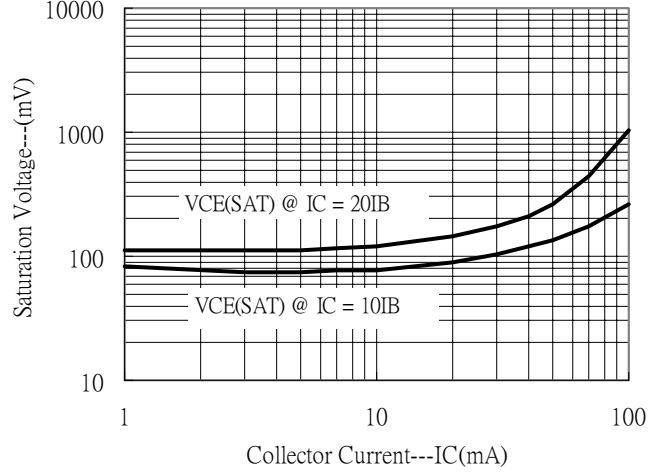
Rank	P	Q
Range	80~140	100~200

**Characteristic Curves**

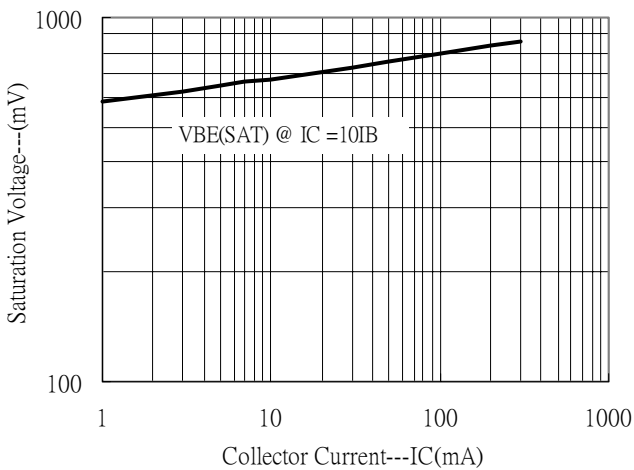
Current Gain vs Collector Current



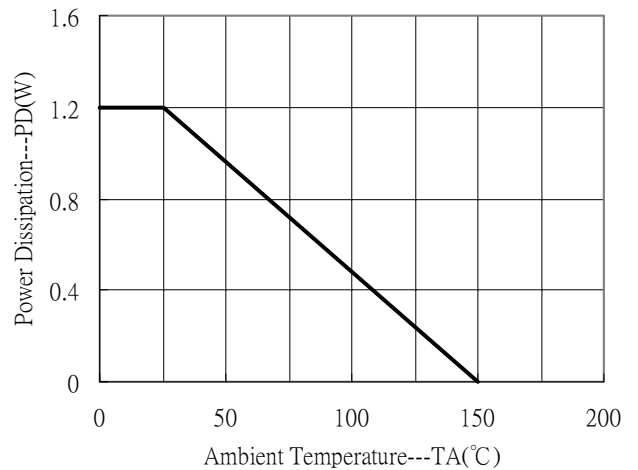
Saturation Voltage vs Collector Current



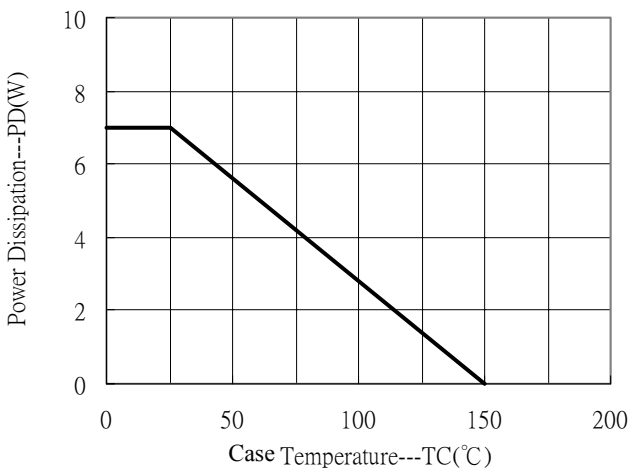
Saturation Voltage vs Collector Current



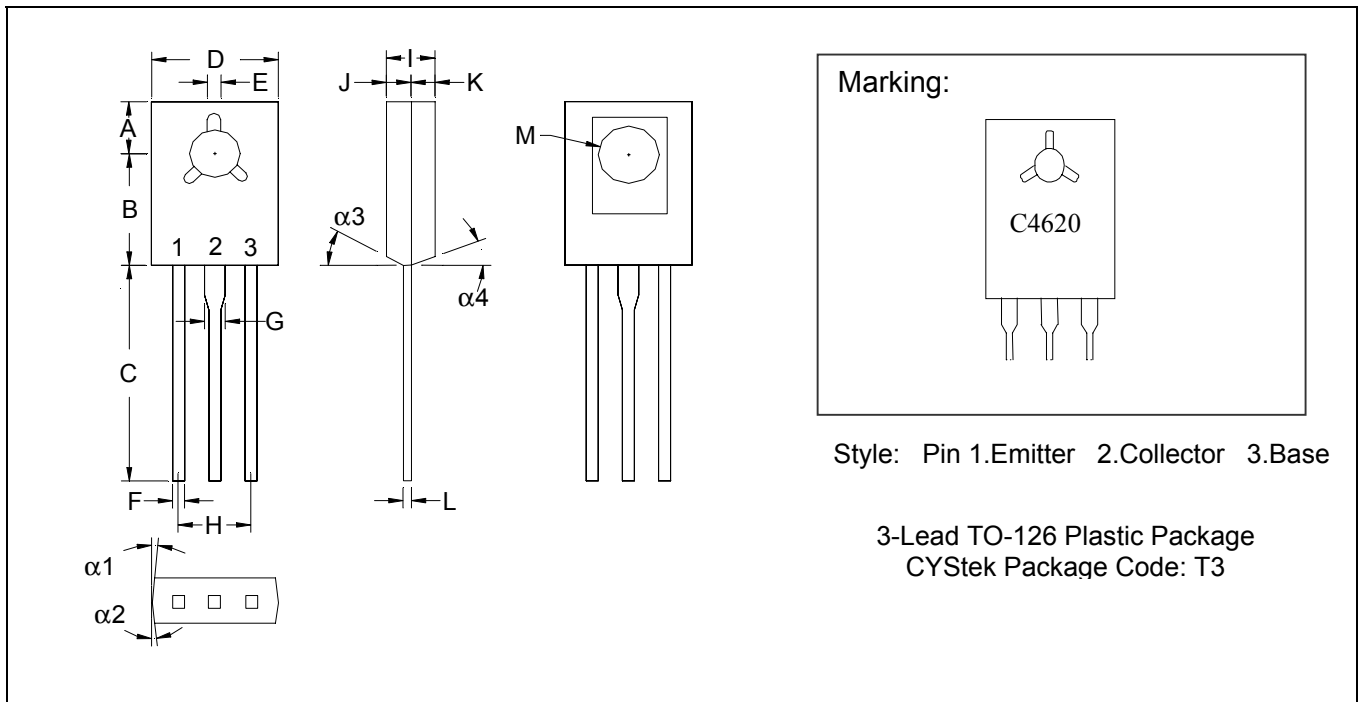
Power Derating Curve



Power Derating Curve



**TO-126 Dimension**



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
$\alpha 1$	-	*3°	-	*3°	F	0.0280	0.0319	0.71	0.81
$\alpha 2$	-	*3°	-	*3°	G	0.0480	0.0520	1.22	1.32
$\alpha 3$	-	*3°	-	*3°	H	0.1709	0.1890	4.34	4.80
$\alpha 4$	-	*3°	-	*3°	I	0.0950	0.1050	2.41	2.66
A	0.1500	0.1539	3.81	3.91	J	0.0450	0.0550	1.14	1.39
B	0.2752	0.2791	6.99	7.09	K	0.0450	0.0550	1.14	1.39
C	0.5315	0.6102	13.50	15.50	L	-	*0.0217	-	*0.55
D	0.2854	0.3039	7.52	7.72	M	0.1378	0.1520	3.50	3.86
E	0.0374	0.0413	0.95	1.05					

- 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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