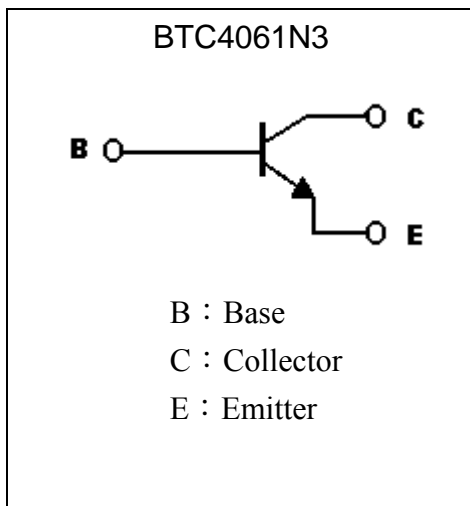
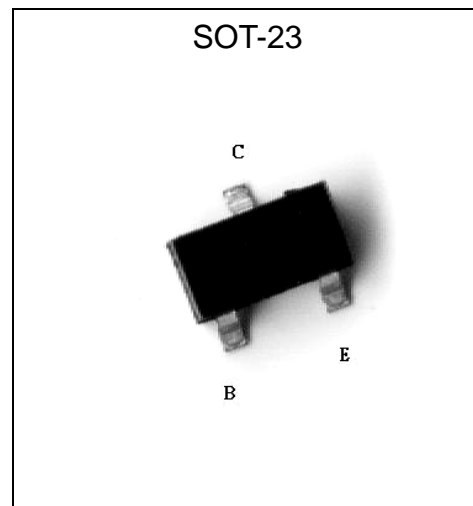


**General Purpose NPN Epitaxial Planar Transistor**

# BTC4061N3

**Description**

- High breakdown voltage.
- Low collector output capacitance.
- Ideal for chroma circuit.
- Pb-free package.

**Symbol**

**Outline**

**Absolute Maximum Ratings** (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V <sub>CB0</sub>	300	V
Collector-Emitter Voltage	V <sub>CEO</sub>	300	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	I <sub>C</sub>	500	mA
Power Dissipation	P <sub>d</sub>	225	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>CBO</sub>	300	-	-	V	I <sub>C</sub> =100μA
BV <sub>CEO</sub>	300	-	-	V	I <sub>C</sub> =1mA
BV <sub>EBO</sub>	6	-	-	V	I <sub>E</sub> =10μA
I <sub>CBO</sub>	-	-	50	nA	V <sub>CB</sub> =250V
I <sub>EBO</sub>	-	-	50	nA	V <sub>EB</sub> =5V
*V <sub>CE(sat)</sub>	-	0.15	0.35	V	I <sub>C</sub> =20mA, I <sub>B</sub> =2mA
*V <sub>BE(sat)</sub>	-	-	0.9	V	I <sub>C</sub> =20mA, I <sub>B</sub> =2mA
*h <sub>FE1</sub>	90	-	-	-	V <sub>CE</sub> =10V, I <sub>C</sub> =1mA
*h <sub>FE2</sub>	100	-	270	-	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA
*h <sub>FE3</sub>	40	-	-	-	V <sub>CE</sub> =10V, I <sub>C</sub> =30mA
f <sub>T</sub>	50	-	-	MHz	V <sub>CE</sub> =20V, I <sub>C</sub> =10mA, f=20MHz
Cob	-	-	6	pF	V <sub>CB</sub> =20V, f=1MHz

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

**Classification Of hFE 2**

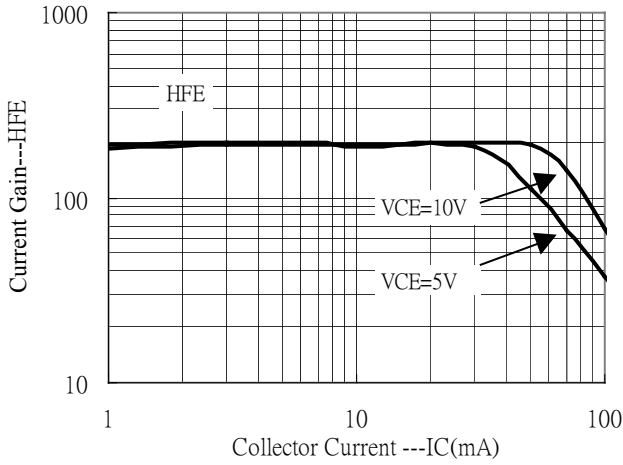
Rank	P	Q
Range	100~180	120~270

**Ordering Information**

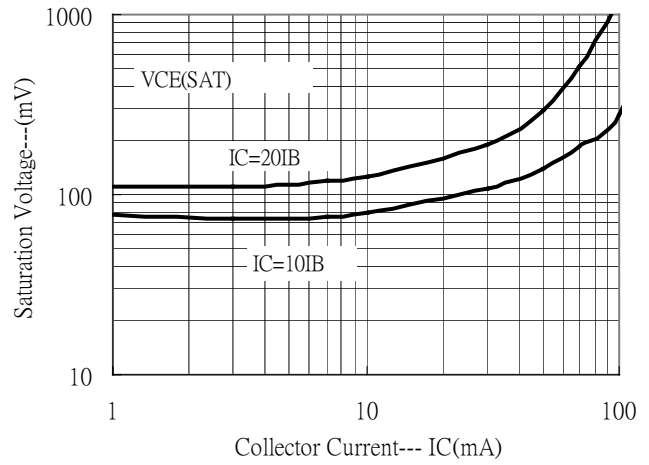
Device	Package	Shipping	Marking
BTC4061N3	SOT-23 (Pb-free)	3000 pcs / Tape & Reel	1D

**Characteristic Curves**

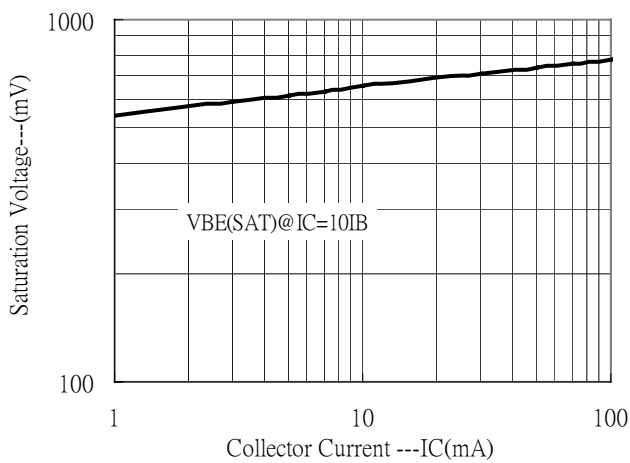
Current Gain vs Collector Current



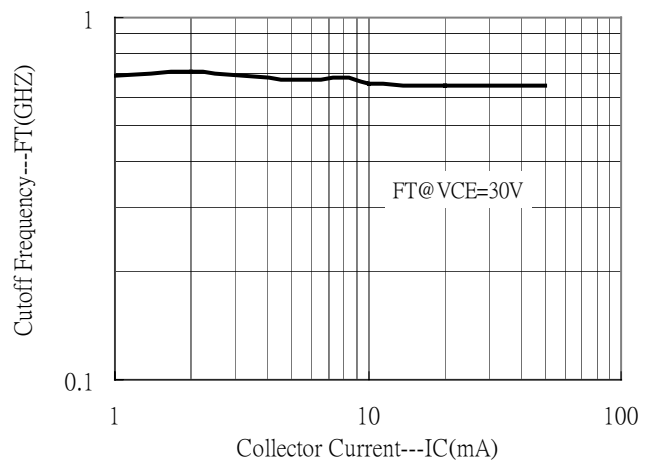
Saturation Voltage vs Collector Current



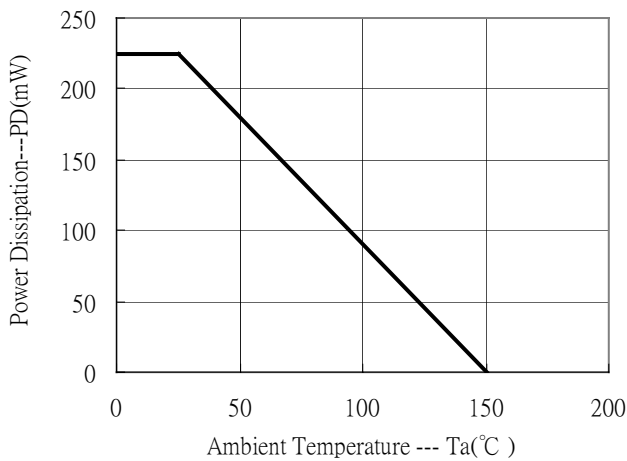
Saturation Voltage vs Collector Current



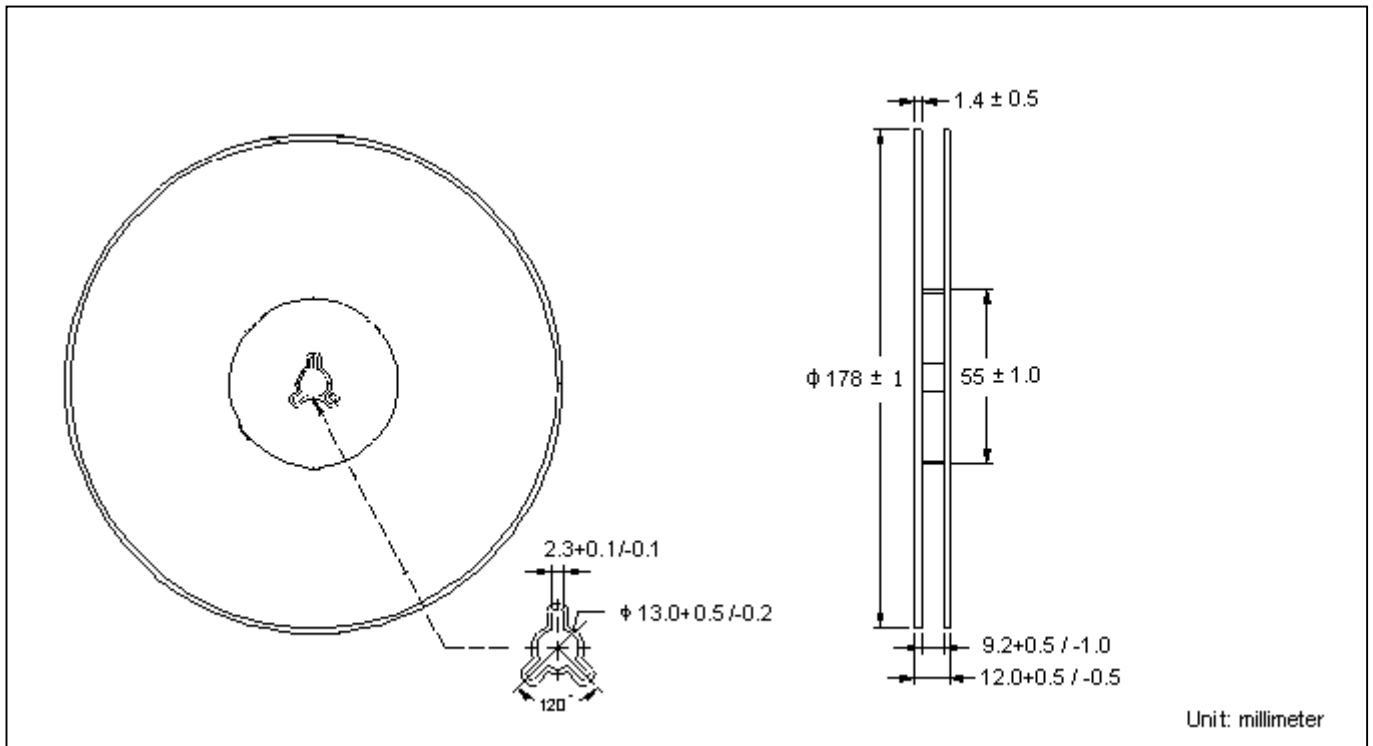
Cutoff Frequency vs Collector Current



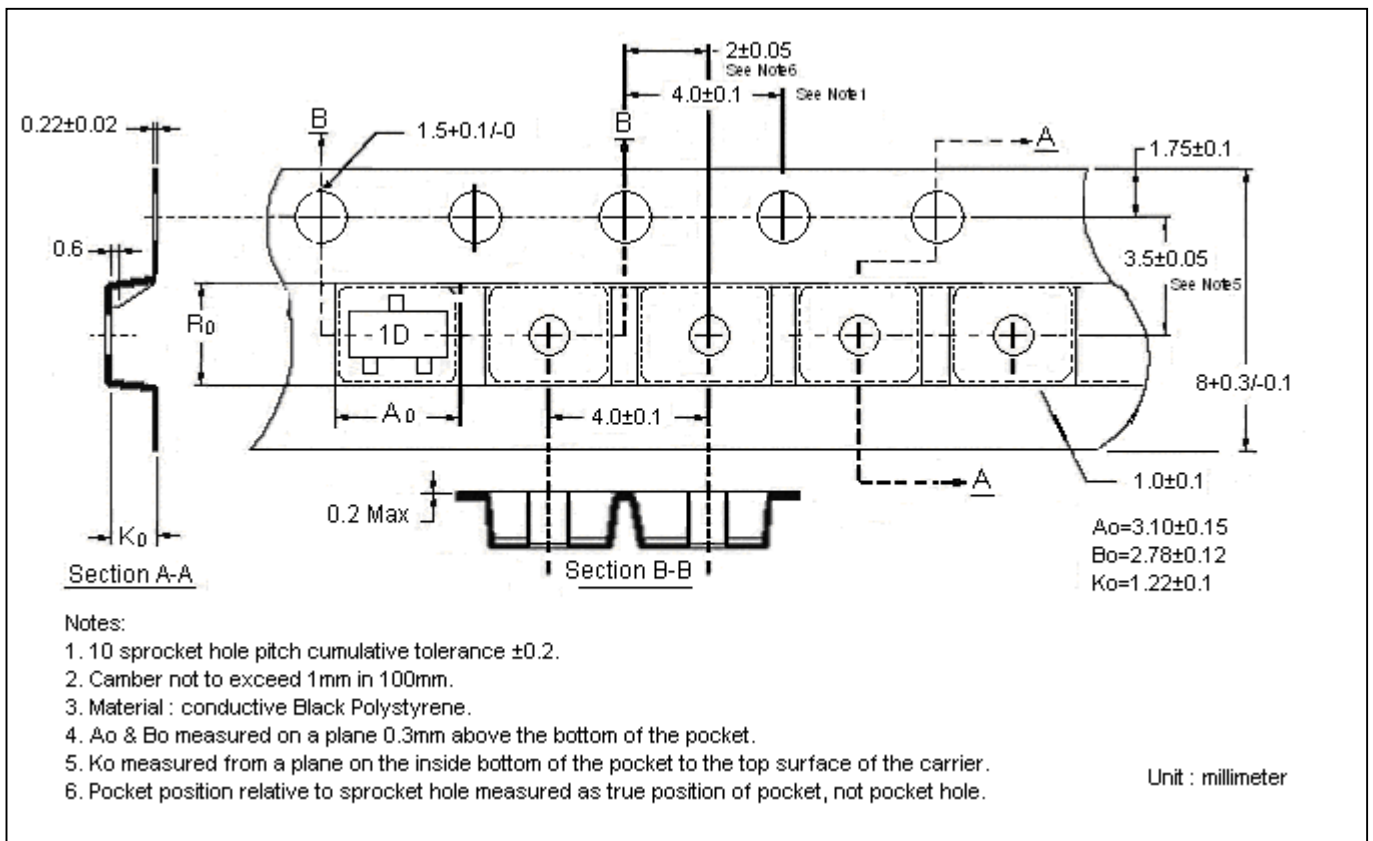
Power Derating Curve



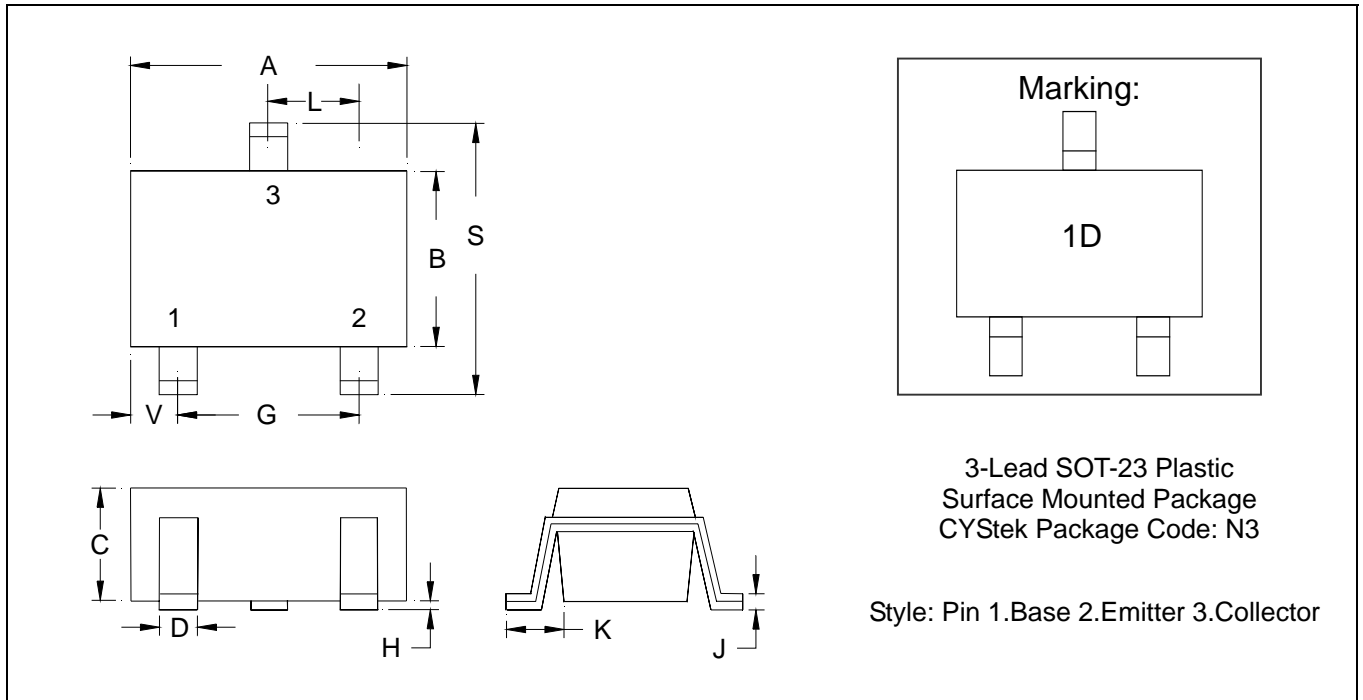
**Reel Dimension**



**Carrier Tape Dimension**



**SOT-23 Dimension**



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

- 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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