

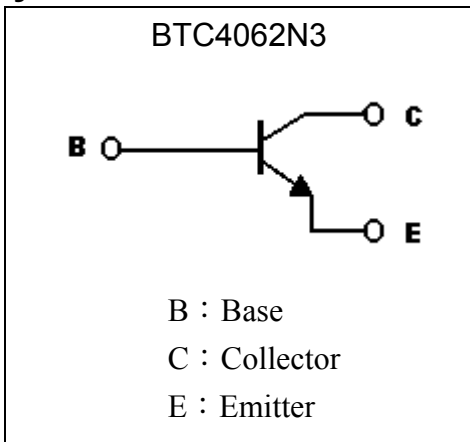
**High Voltage NPN Epitaxial Planar Transistor**

# BTC4062N3

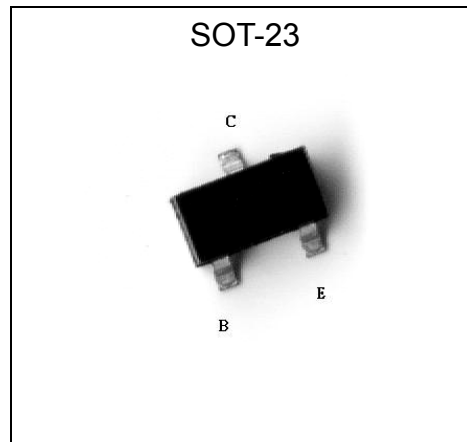
**Features**

- High Breakdown Voltage:  $BV_{CEO} \geq 350V$
- Complementary to BTA1722N3
- Pb-free package

**Symbol**



**Outline**



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

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	$V_{CBO}$	350	V
Collector-Emitter Voltage	$V_{CEO}$	350	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current---continuous	$I_C$	500	mA
Power Dissipation @ $T_A=25^\circ C$	$P_d$	225	mW
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
$BV_{CBO}$	350	-	-	V	$I_C=100\mu A$
$BV_{CEO}$	350	-	-	V	$I_C=1mA$
$BV_{EBO}$	6	-	-	V	$I_E=10\mu A$
$I_{CBO}$	-	-	50	nA	$V_{CB}=250V$
$I_{EBO}$	-	-	50	nA	$V_{EB}=5V$
$V_{CE(sat) 1}$	-	-	0.3	V	$I_C=10mA, I_B=1mA$
$V_{CE(sat) 2}$	-	-	0.35	V	$I_C=20mA, I_B=2mA$
* $V_{CE(sat) 3}$	-	-	0.5	V	$I_C=30mA, I_B=3mA$
* $V_{CE(sat) 4}$	-	-	1.0	V	$I_C=50mA, I_B=5mA$
$V_{BE(sat) 1}$	-	-	0.75	V	$I_C=10mA, I_B=1mA$
$V_{BE(sat) 2}$	-	-	0.85	V	$I_C=20mA, I_B=2mA$
* $V_{BE(sat) 3}$	-	-	0.9	V	$I_C=30mA, I_B=3mA$
$V_{BE(on)}$	-	-	2	V	$V_{CE}=10V, I_C=100mA$
$h_{FE 1}$	20	-	-	-	$V_{CE}=10V, I_C=1mA$
$h_{FE 2}$	30	-	-	-	$V_{CE}=10V, I_C=10mA$
* $h_{FE 3}$	30	-	200	-	$V_{CE}=10V, I_C=30mA$
* $h_{FE 4}$	20	-	200	-	$V_{CE}=10V, I_C=50mA$
* $h_{FE 5}$	15	-	-	-	$V_{CE}=10V, I_C=100mA$
$f_T$	40	-	200	MHz	$V_{CE}=20V, I_C=10mA, f=20MHz$
Cob	-	-	6	pF	$V_{CB}=20V, I_E=0A, f=1MHz$

\*Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

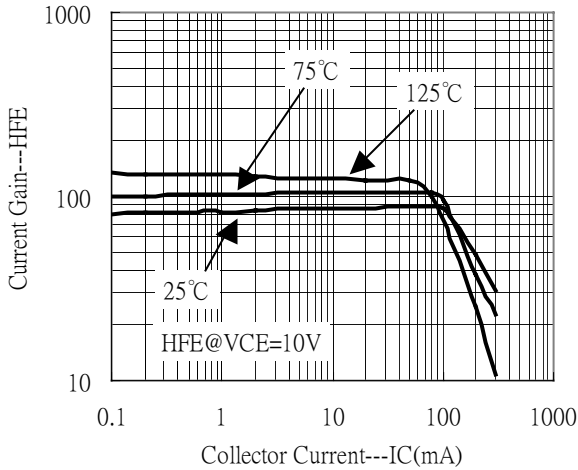
Ordering Information

Device	Package	Shipping	Marking
BTC4062N3	SOT-23 (Pb-free)	3000 pcs / Tape & Reel	1Z

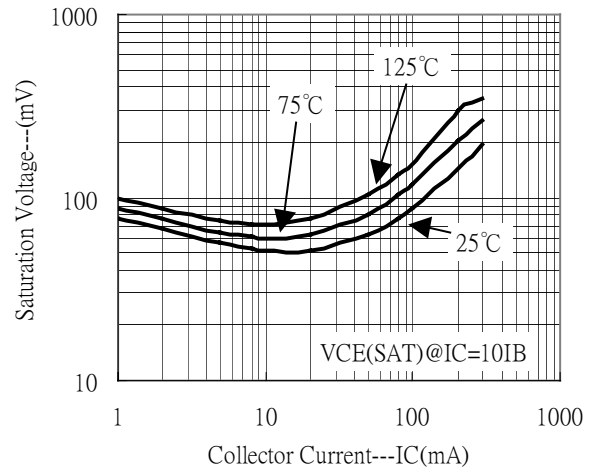


### Characteristic Curves

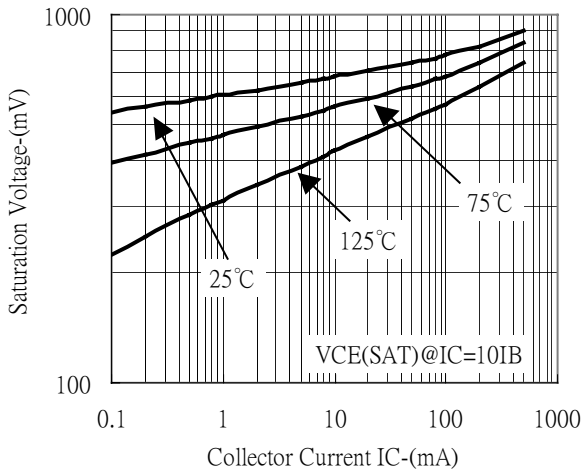
Current Gain vs Collector Current



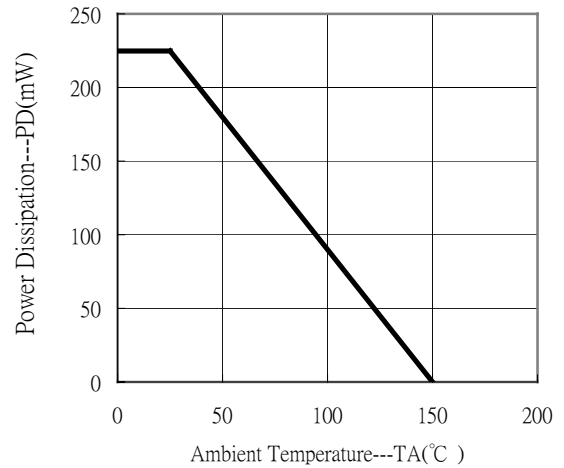
Saturation Voltage vs Collector Current



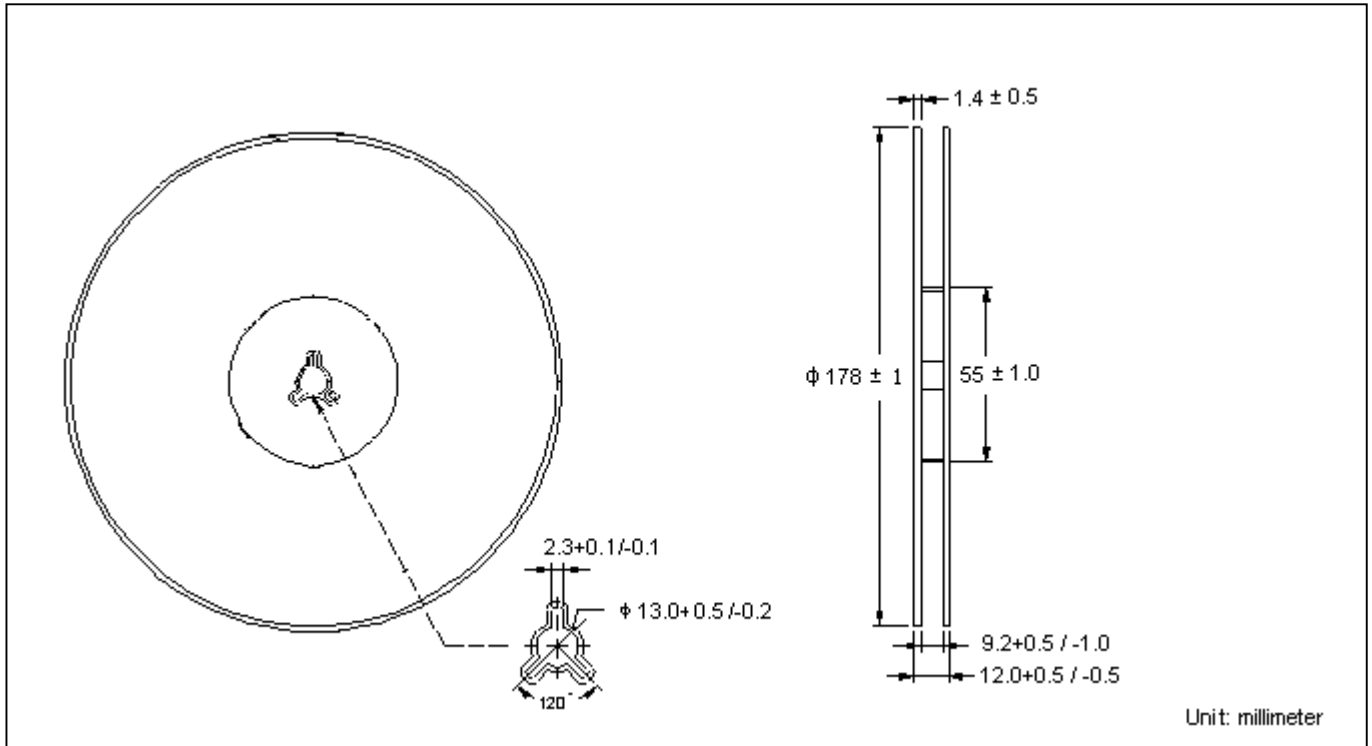
Saturation Voltage vs Collector Current



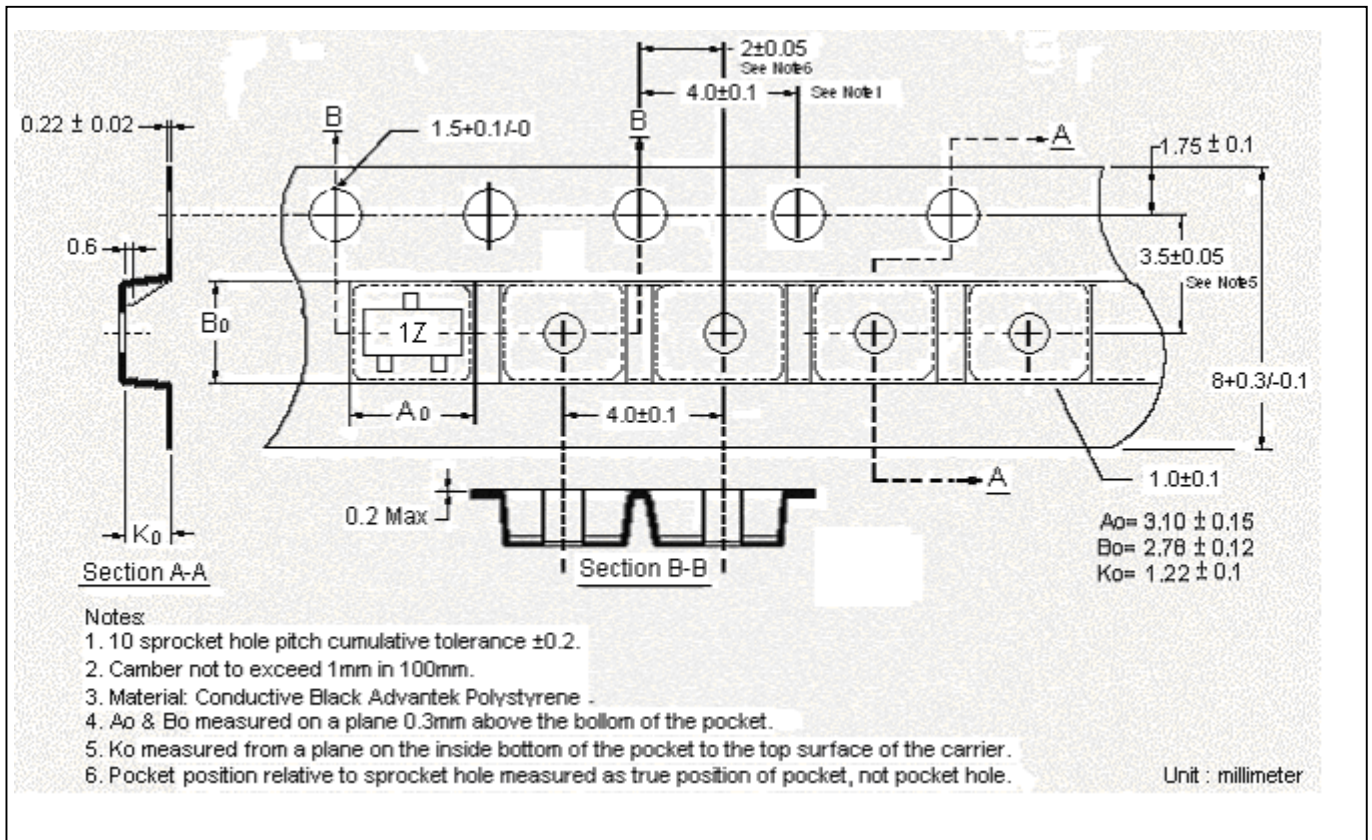
Power Derating Curve



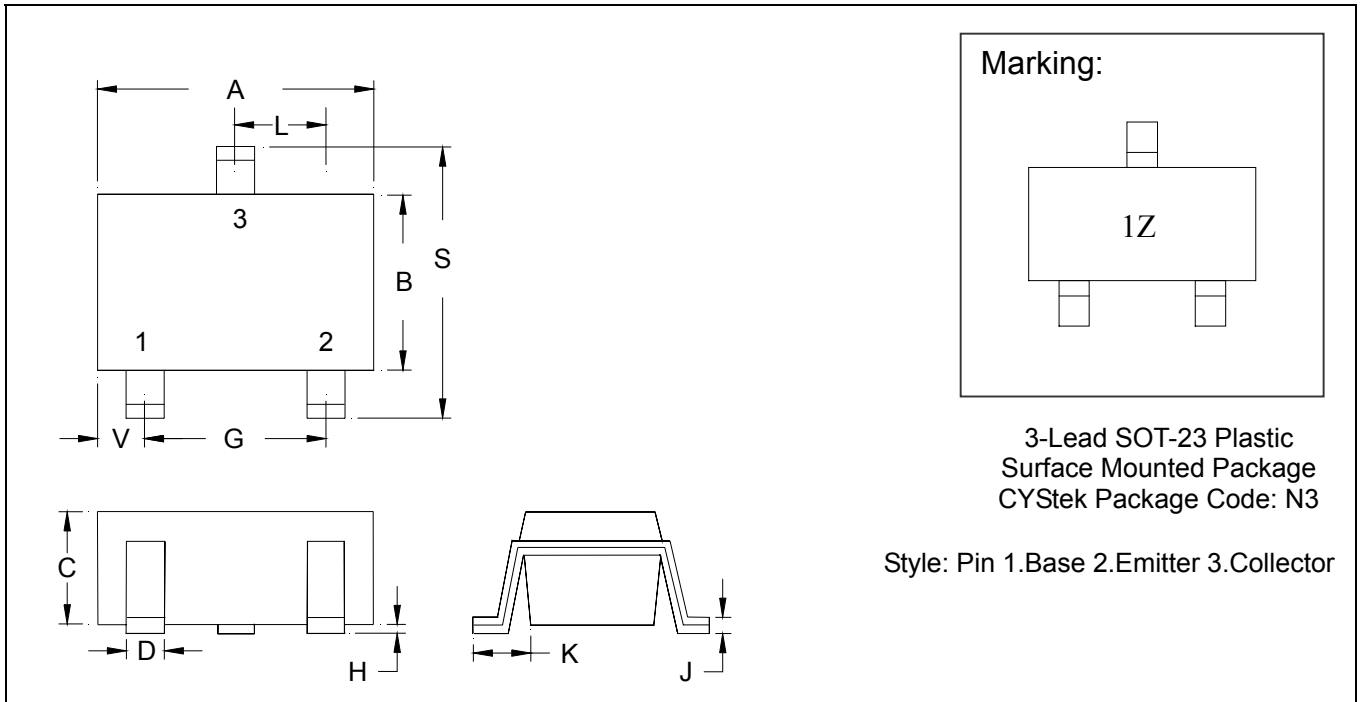
**Reel Dimension**



**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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