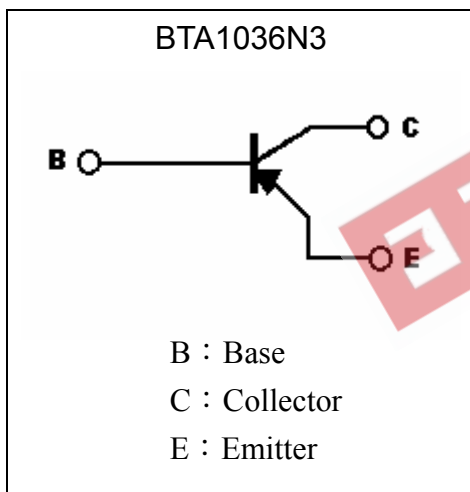
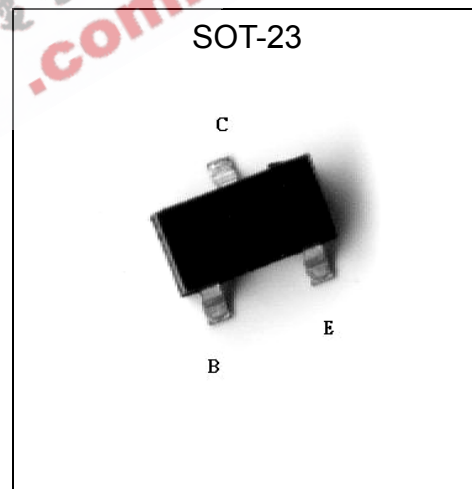


**General Purpose PNP Epitaxial Planar Transistor**

# BTA1036N3

**Description**

- The BTA1036N3 is designed for using in driver stage of AF amplifier and general purpose amplification.
- Large  $I_C$  ,  $I_{C(Max)} = -0.6A$
- Low  $V_{CE(sat)}$ , ideal for low-voltage operation.
- Complementary to BTC2411N3.
- Pb-free package

**Symbol**

**Outline**

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

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-0.6	A
Power Dissipation	$P_d$	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ C/W$
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>	-60	-	-	V	I <sub>C</sub> =-10μA
BV <sub>CEO</sub>	-60	-	-	V	I <sub>C</sub> =-10mA
BV <sub>EB0</sub>	-5	-	-	V	I <sub>E</sub> =-10μA
I <sub>CB0</sub>	-	-	-10	nA	V <sub>CB</sub> =-50V
I <sub>CEX</sub>	-	-	-50	nA	V <sub>CE</sub> =-30V, V <sub>EB</sub> =-0.5V
*V <sub>CE(sat)</sub> 1	-	-	-0.4	V	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA
*V <sub>CE(sat)</sub> 2	-	-	-0.75	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
*V <sub>BE(sat)</sub> 1	-	-	-0.95	V	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA
*V <sub>BE(sat)</sub> 2	-	-	-1.3	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
h <sub>FE</sub> 1	75	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-0.1mA
h <sub>FE</sub> 2	100	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-1mA
h <sub>FE</sub> 3	100	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA
*h <sub>FE</sub> 4	82	-	390	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-150mA
*h <sub>FE</sub> 5	50	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-500mA
f <sub>T</sub>	200	-	-	MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA, f=100MHz
C <sub>ob</sub>	-	-	8	pF	V <sub>CB</sub> =-10V, f=1MHz

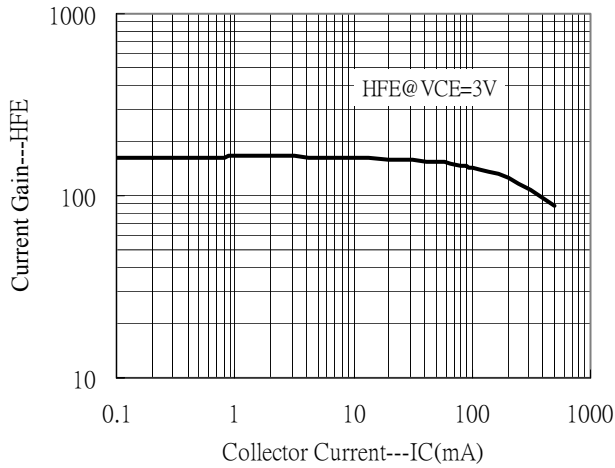
\*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

**Classification Of h<sub>FE</sub> 4**

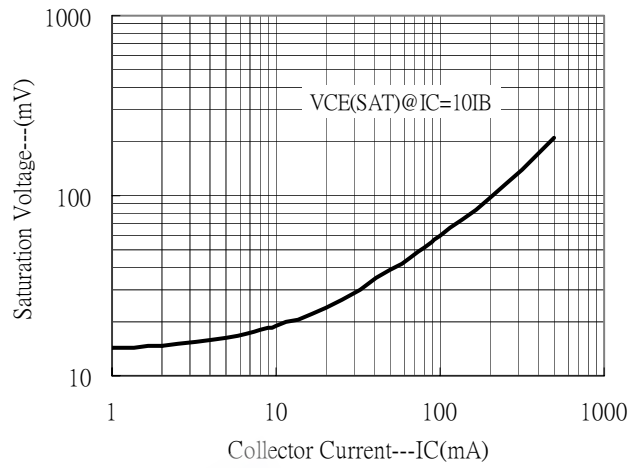
Rank	P	Q	R
Range	82~180	120~270	180~390

**Characteristic Curves**

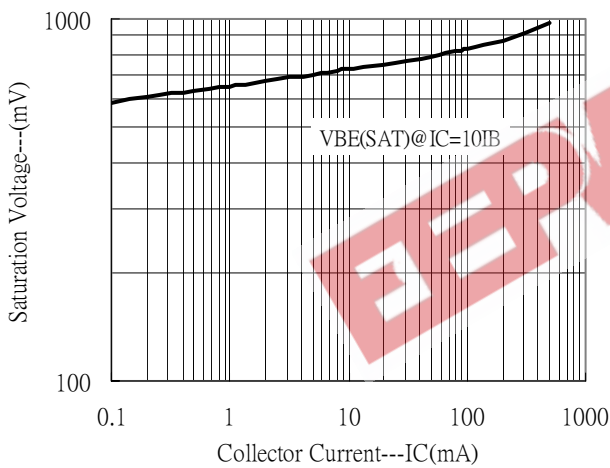
Current Gain vs Collector Current



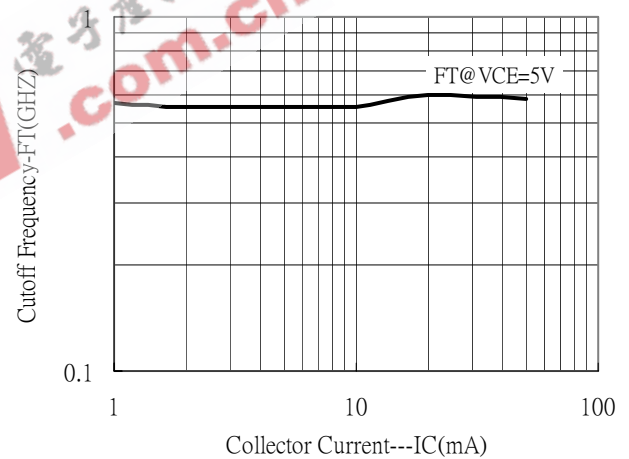
Saturation Voltage vs Collector Current



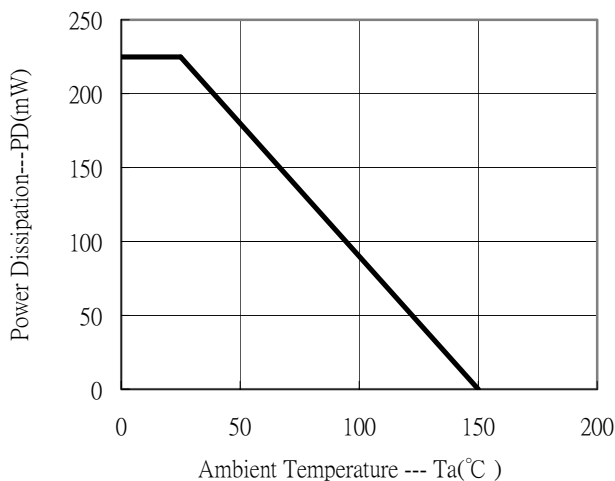
Saturation Voltage vs Collector Current



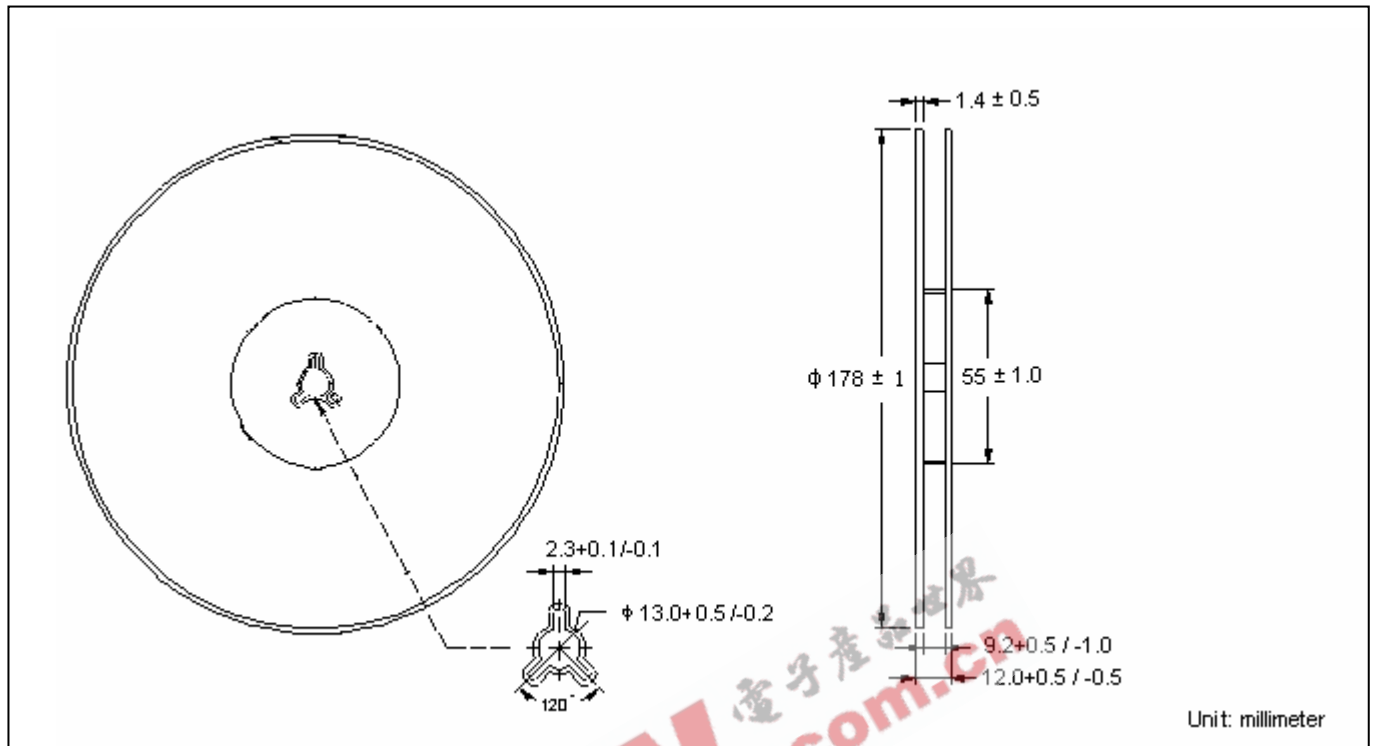
Cutoff Frequency vs Collector Current



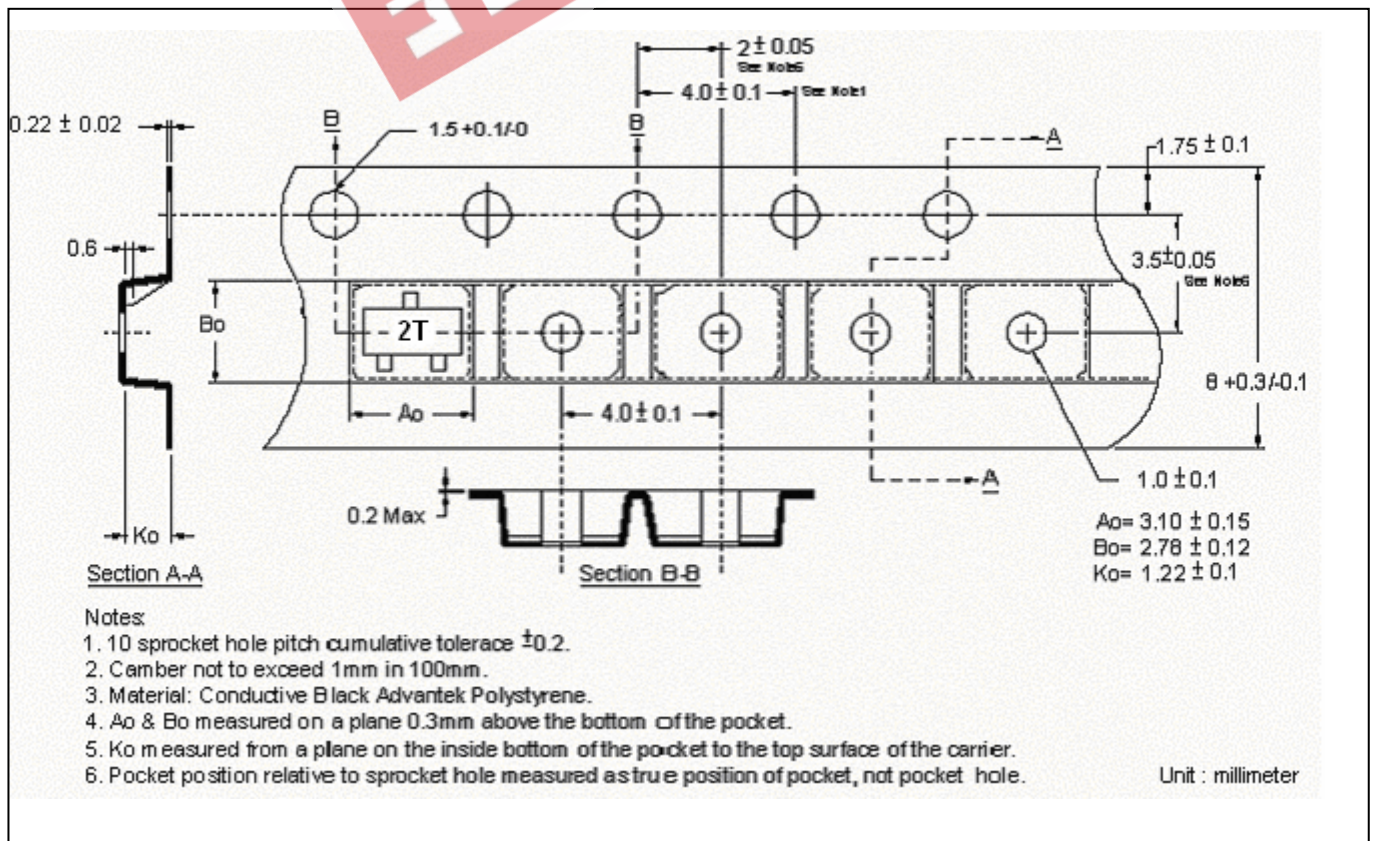
Power Derating Curve



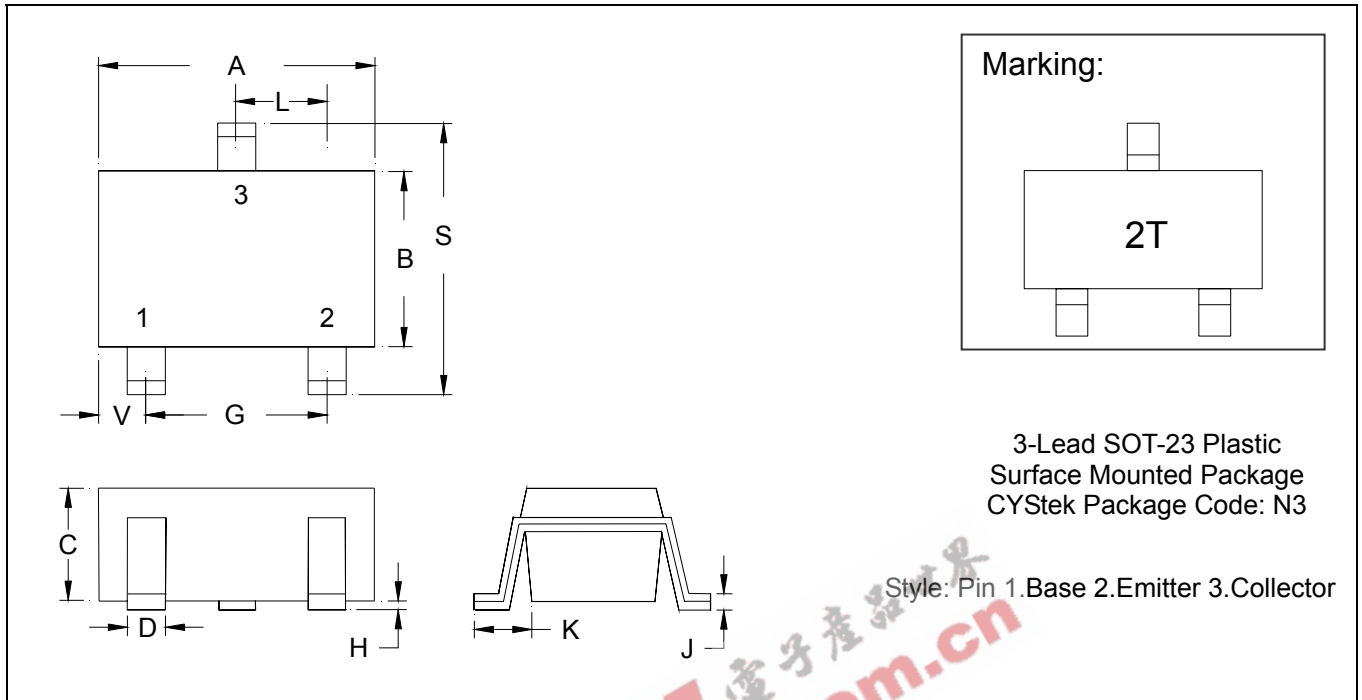
**Reel Dimension**



**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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