

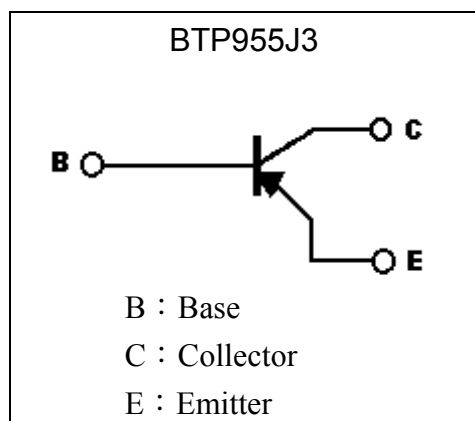
**PNP Epitaxial Planar High Current (High Performance) Transistor**

# BTP955J3

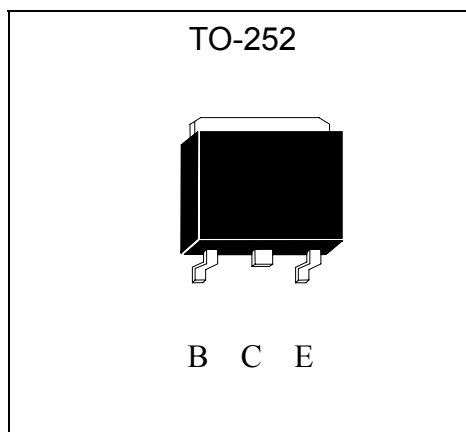
## Features

- 4 Amps continuous current, up to 10 Amps peak current
- Very low saturation voltage
- Excellent gain characteristics specified up to 3 Amps
- Ptot=3Watts
- Extremely low equivalent on resistance,  $R_{CE(SAT)}=90m\Omega$  at 3A
- Pb-free package

## Symbol



## Outline



## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-120	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-100	V
Emitter-Base Voltage	V <sub>EBO</sub>	-6	V
Continuous Collector Current	I <sub>C</sub>	-4	A
Peak Collector Current	I <sub>CP</sub>	-10 (Note 1)	A
Base Current	I <sub>B</sub>	-1 (Note 2)	A
Power Dissipation	Pd	@T <sub>A</sub> =25°C	1.75
		@T <sub>C</sub> =25°C	20
Operating and Storage Temperature Range	T <sub>j</sub> ; T <sub>stg</sub>	-55 ~ +150	°C

Note : 1. Single Pulse , Pw ≤ 380μs, Duty ≤ 2%.

2. When mounted on a PCB with the minimum pad size.

**Characteristics** (Ta=25°C, unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>CB0</sub>	-120	-	-	V	I <sub>C</sub> =-100μA
BV <sub>CER</sub>	-100	-	-	V	I <sub>C</sub> =-1μA, R <sub>BE</sub> ≤1kΩ
*BV <sub>CEO</sub>	-100	-	-	V	I <sub>C</sub> =-10mA
BV <sub>EBO</sub>	-6	-	-	V	I <sub>E</sub> =-100μA
I <sub>CB0</sub>	-	-	-50	nA	V <sub>CB</sub> =-100V
I <sub>CER</sub>	-	-	-50	nA	V <sub>CE</sub> =-100V, R <sub>BE</sub> ≤1kΩ
I <sub>EBO</sub>	-	-	-10	nA	V <sub>EB</sub> =-6V
*V <sub>CE(sat)1</sub>	-	-40	-60	mV	I <sub>C</sub> =-100mA, I <sub>B</sub> =-5mA
*V <sub>CE(sat)2</sub>	-	-70	-120	mV	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
*V <sub>CE(sat)3</sub>	-	-110	-150	mV	I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA
*V <sub>CE(sat)4</sub>	-	-270	-370	mV	I <sub>C</sub> =-3A, I <sub>B</sub> =-300mA
*V <sub>BE(sat)</sub>	-	-930	-1110	mV	I <sub>C</sub> =-3A, I <sub>B</sub> =-300mA
*V <sub>BE(on)</sub>	-	-830	-950	mV	V <sub>CE</sub> =-5V, I <sub>C</sub> =-3A
h <sub>FE1</sub>	100	200	-	-	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA
h <sub>FE2</sub>	100	200	300	-	V <sub>CE</sub> =-5V, I <sub>C</sub> =-1A
*h <sub>FE3</sub>	75	140	-	-	V <sub>CE</sub> =-5V, I <sub>C</sub> =-3A
*h <sub>FE4</sub>	-	10	-	-	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10A
f <sub>T</sub>	-	110	-	MHz	V <sub>CE</sub> =-10V, I <sub>C</sub> =-100mA, f=50MHz
C <sub>ob</sub>	-	40	-	pF	V <sub>CB</sub> =-20V, f=1MHz
ton		68		ns	I <sub>C</sub> =-1A, I <sub>B1</sub> =-100mA, I <sub>B2</sub> =100mA,
toff		1030		ns	V <sub>CC</sub> =-50V

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

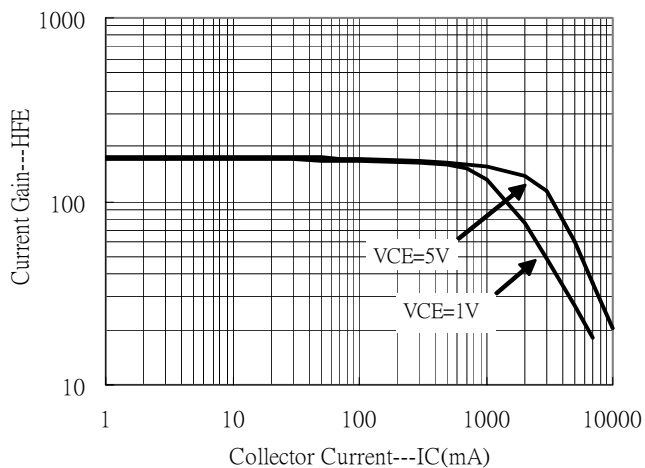
**Ordering Information**

Device	Package	Shipping	Marking
BTP955J3	TO-252 (Pb-free)	2500 pcs / Tape & Reel	P955

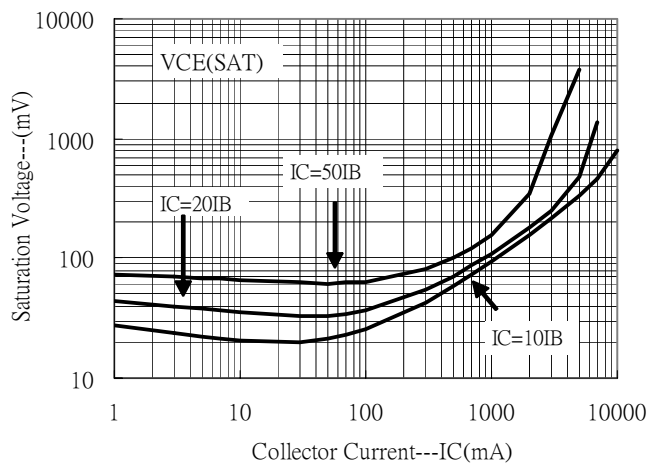


### Characteristic Curves

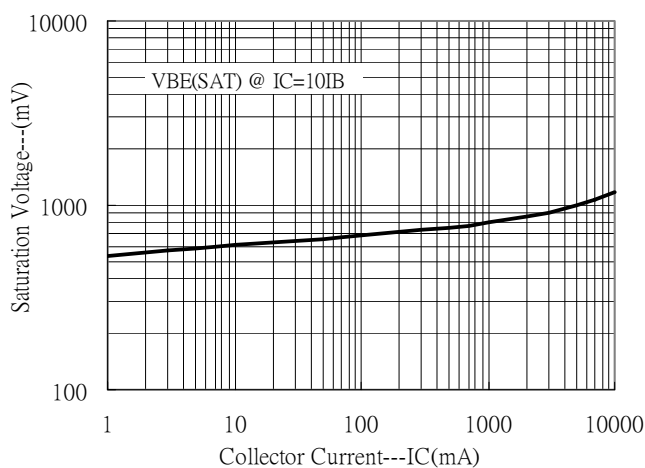
Current Gain vs Collector Current



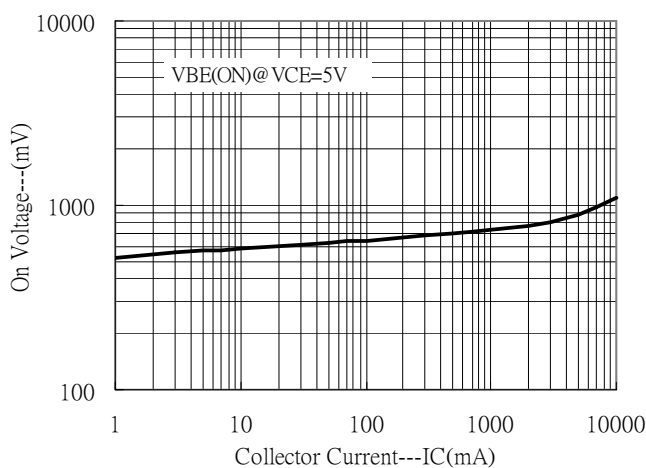
Saturation Voltage vs Collector Current



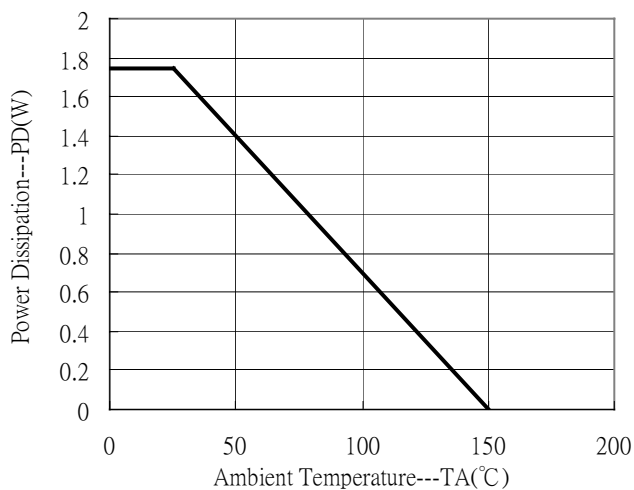
Saturation Voltage vs Collector Current



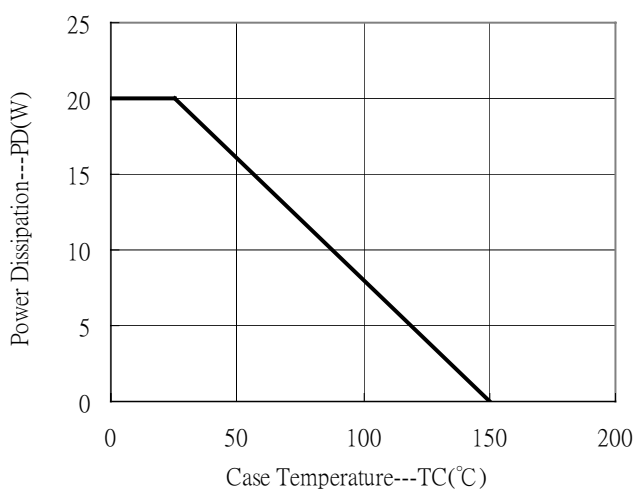
On Voltage vs Collector Current



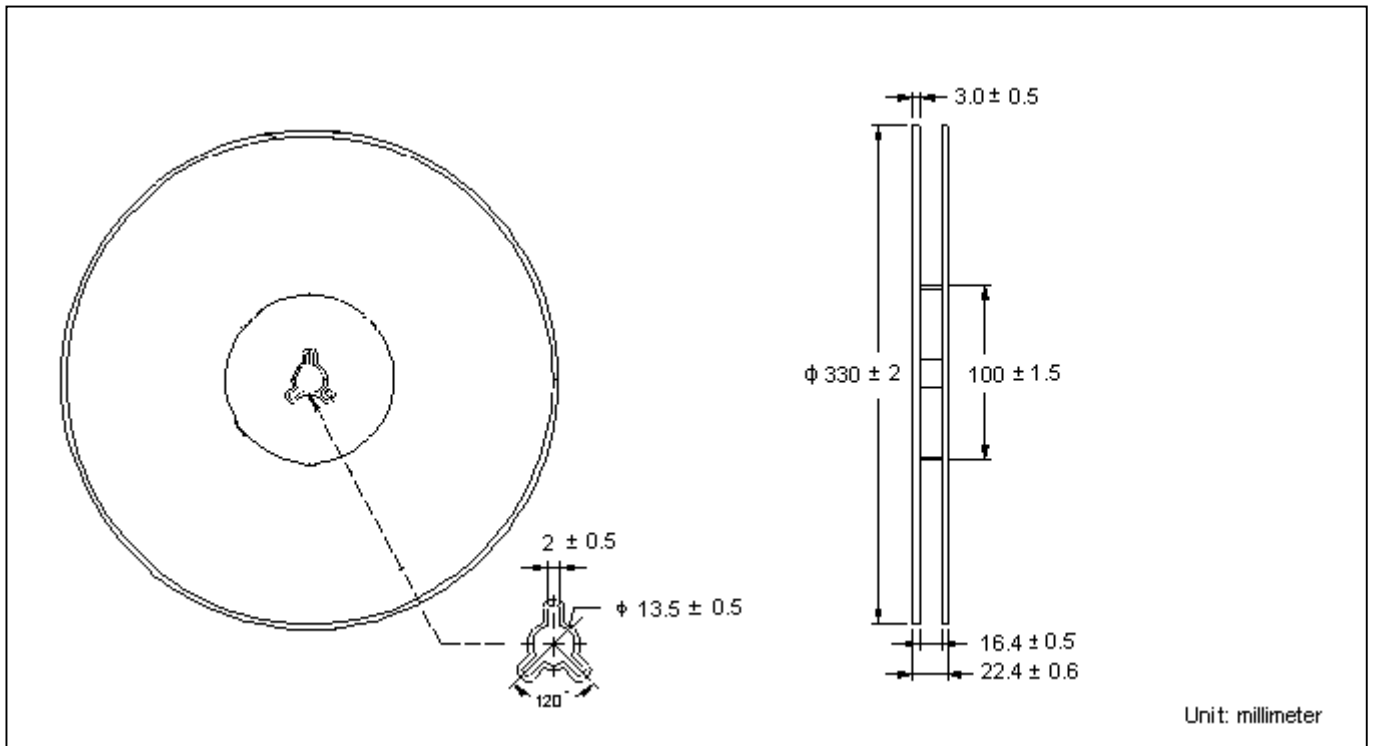
Power Derating Curve



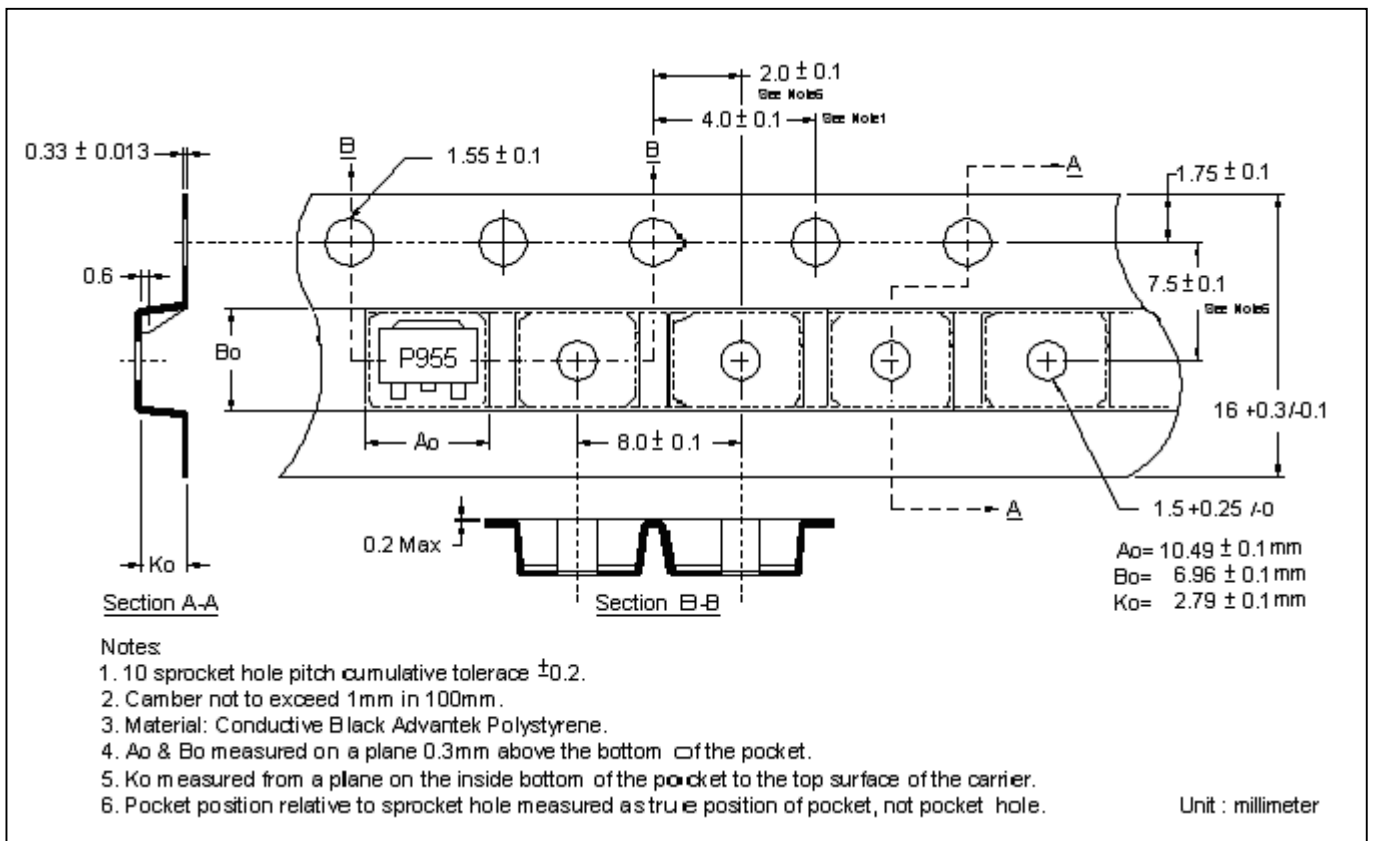
Power Derating Curve



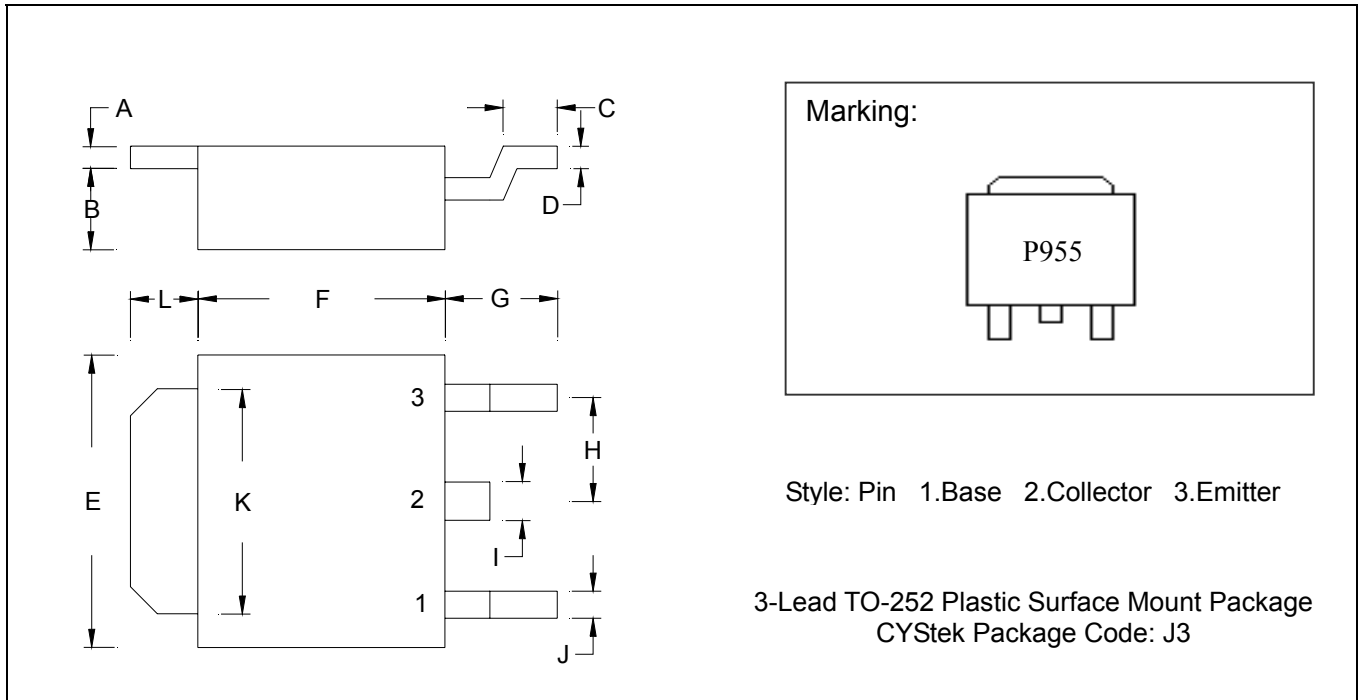
**Reel Dimension**



**Carrier Tape Dimension**



**TO-252 Dimension**



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.0866	0.1102	2.20	2.80
B	0.0650	0.0768	1.65	1.95	H	-	*0.0906	-	*2.30
C	0.0354	0.0591	0.90	1.50	I	-	0.0354	-	0.90
D	0.0177	0.0236	0.45	0.60	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2125	0.2283	5.40	5.80	L	0.0551	0.0630	1.40	1.60

- 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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