

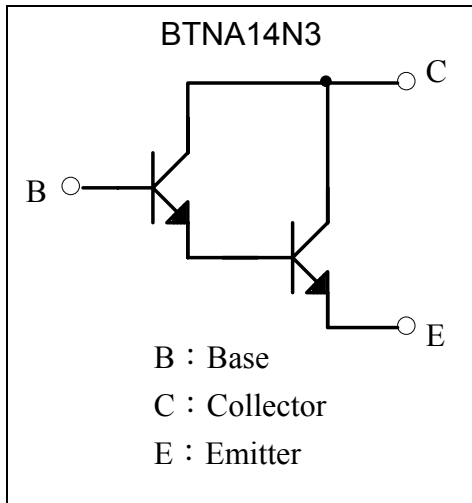
General Purpose NPN Epitaxial Planar Transistor

BTNA14N3

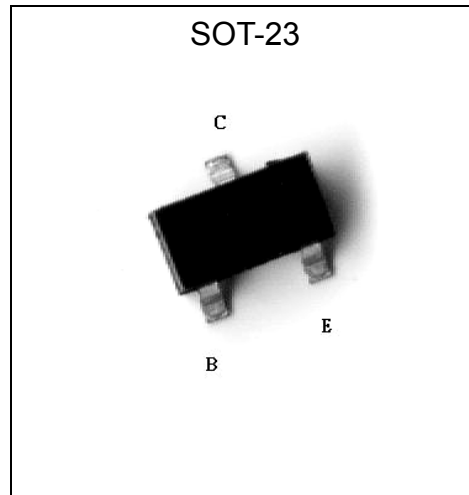
Description

- The BTNA14N3 is a darlington amplifier transistor
- Complementary to BTPA64N3.

Equivalent Circuit



Outline



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CES}	30	V
Emitter-Base Voltage	V _{EBO}	10	V
Collector Current	I _c	0.5	A
Power Dissipation	P _d	225	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C



Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	30	-	-	V	I _C =100μA
BV _{CES}	30	-	-	V	I _C =100μA
BV _{EBO}	10	-	-	V	I _C =10μA
I _{CB0}	-	-	100	nA	V _{CE} =30V
I _{EBO}	-	-	100	nA	V _{EB} =10V
*V _{CE(sat)}	-	-	1.5	V	I _C =100mA, I _B =0.1mA
*V _{BE(on)}	-	-	2.0	V	V _{CE} =5V, I _C =100mA
*h _{FE1}	10K	-	-		V _{CE} =5V, I _C =10mA
*h _{FE2}	20K	-	-		V _{CE} =5V, I _C =100mA
f _T	125	-	-	MHz	V _{CE} =5V, I _C =10mA, f=100MHz
C _{ob}	-	-	6	pF	V _{CB} =10V, f=1MHz

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

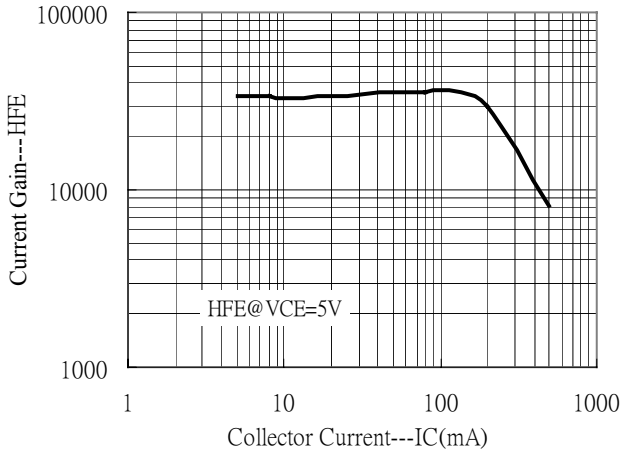
Ordering Information

Device	Package	Shipping	Marking
BTNA14N3	SOT-23 (Pb-free)	3000 pcs / Tape & Reel	1N

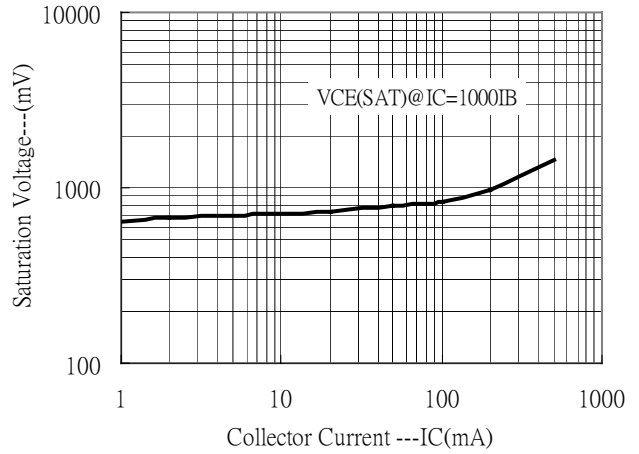


Characteristic Curves

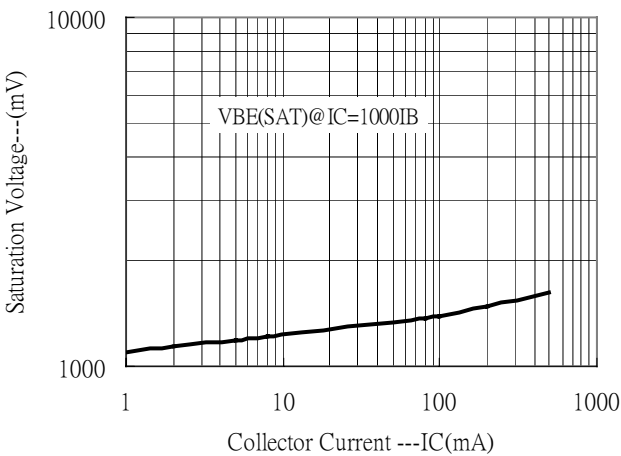
Current Gain vs Collector Current



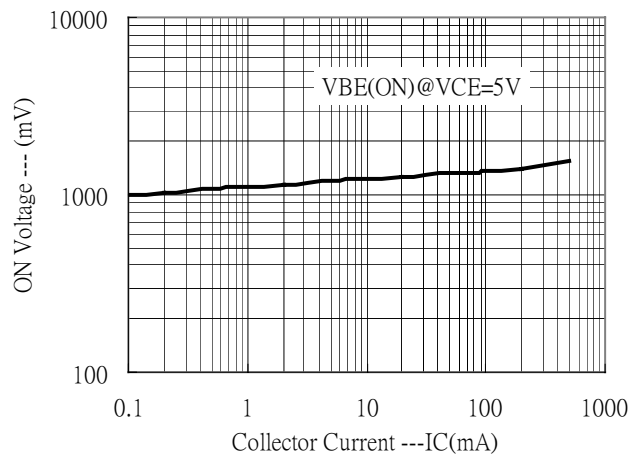
Saturation Voltage vs Collector Current



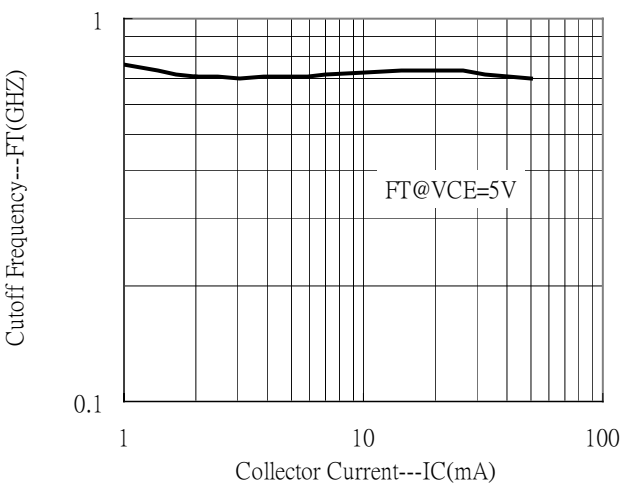
Saturation Voltage vs Collector Current



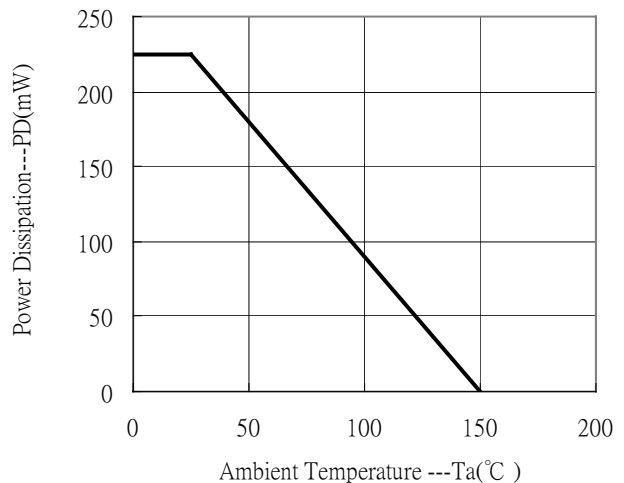
ON Voltage vs Collector Current



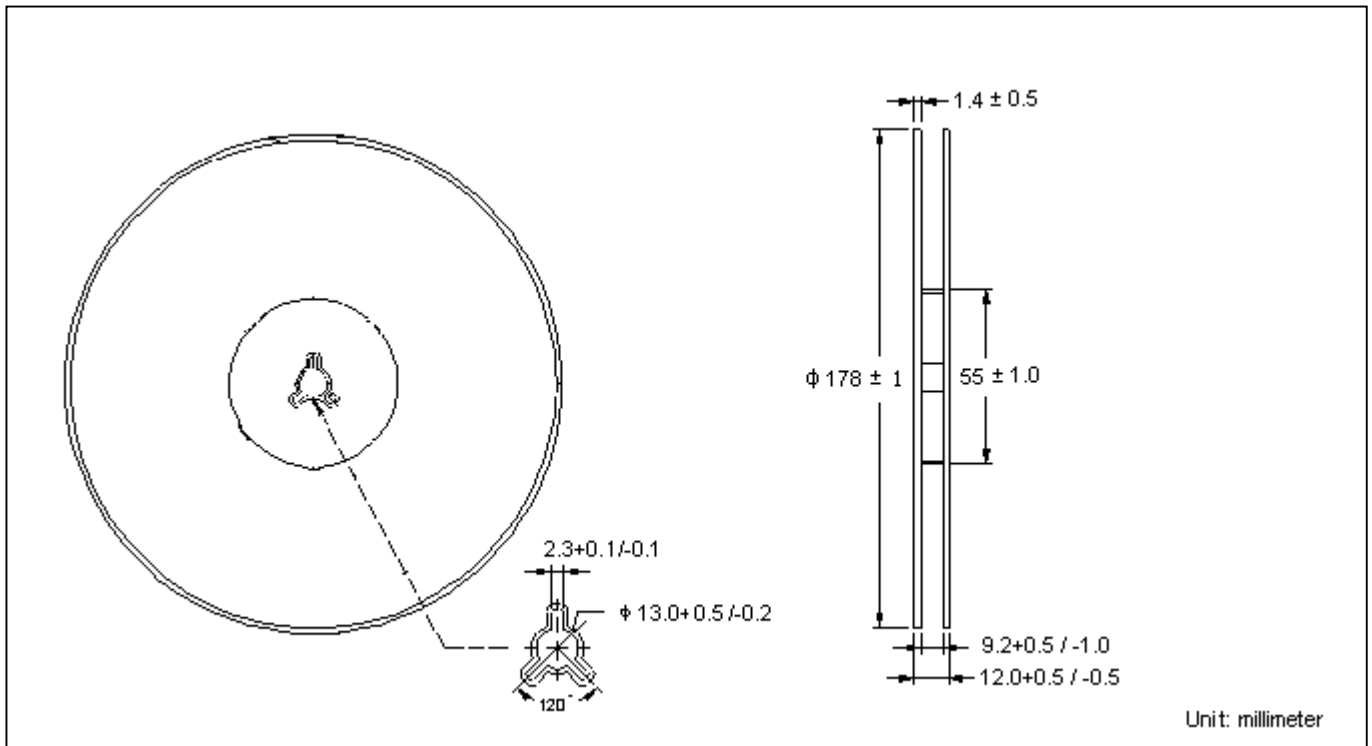
Cutoff Frequency vs Collector Current



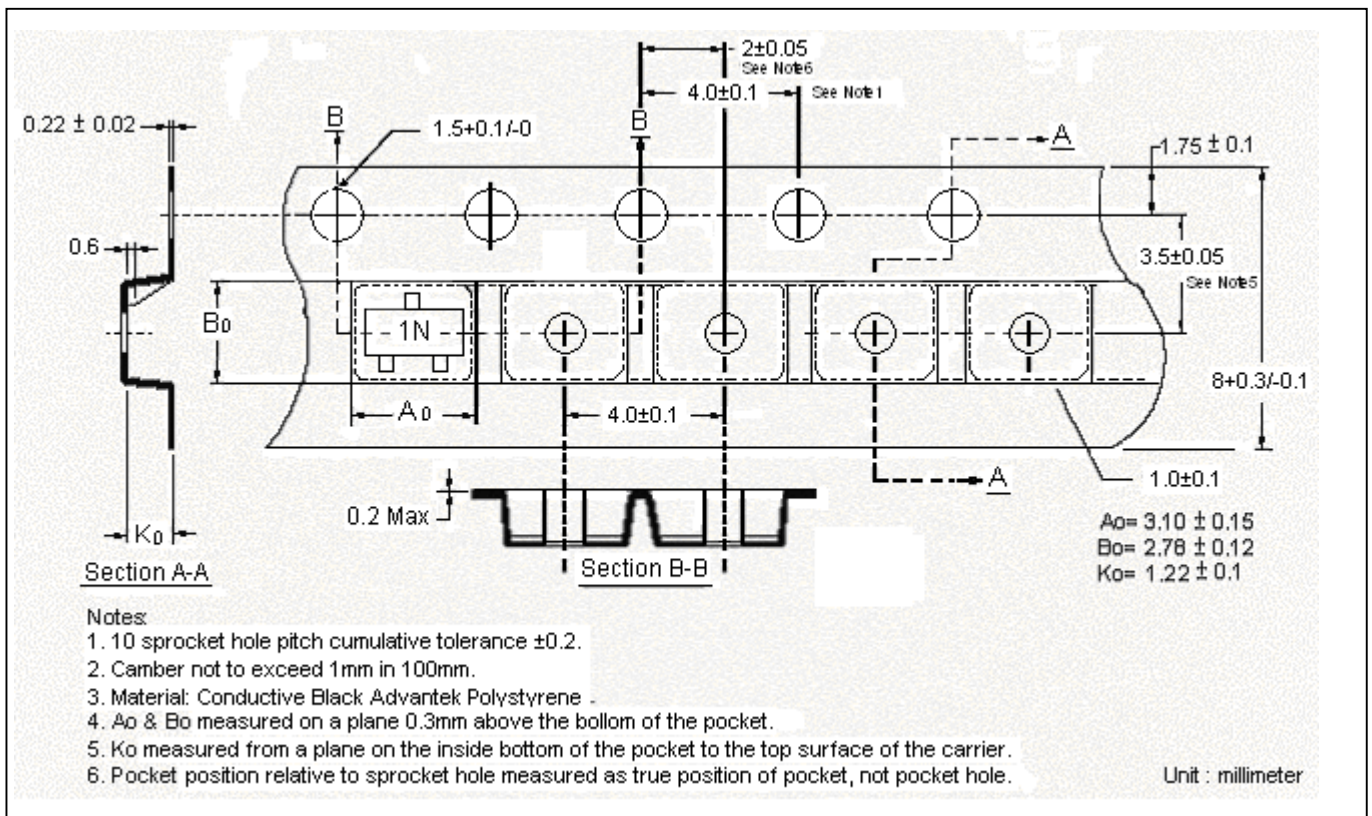
Power Derating Curve



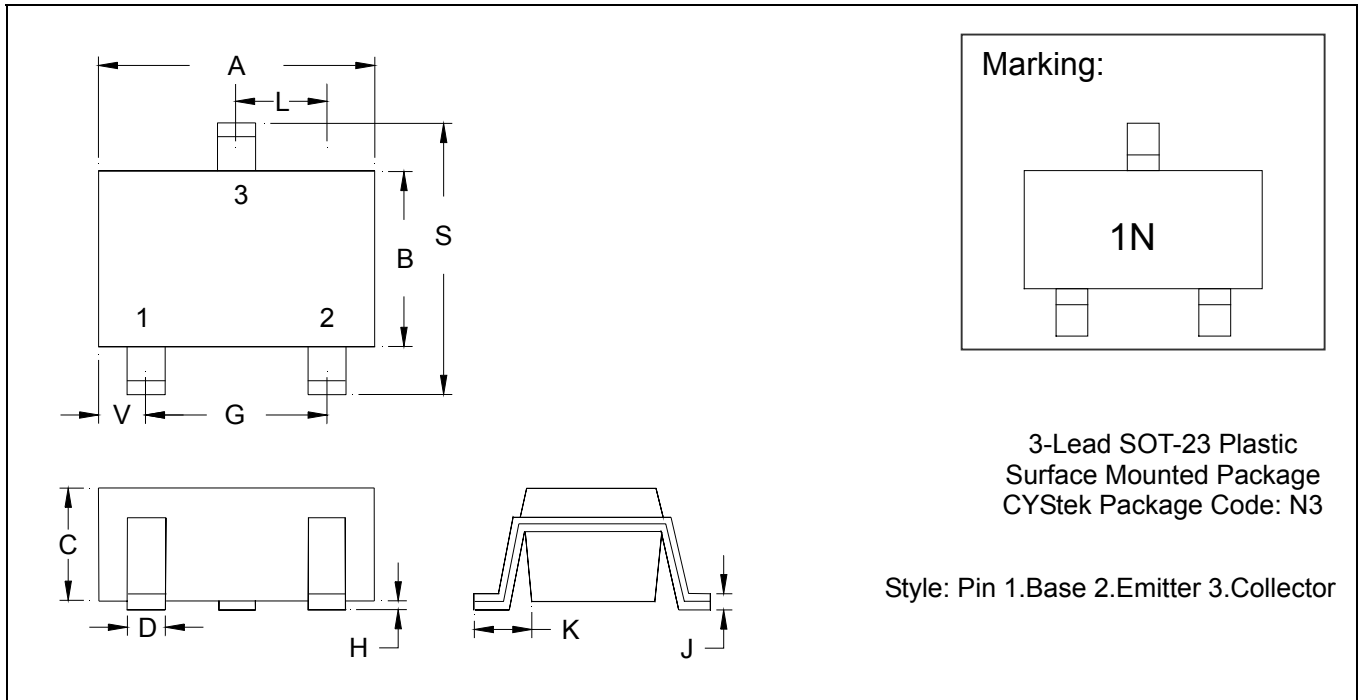
Reel Dimension



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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