

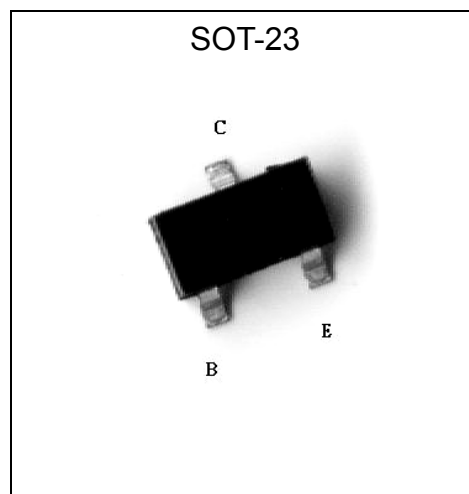
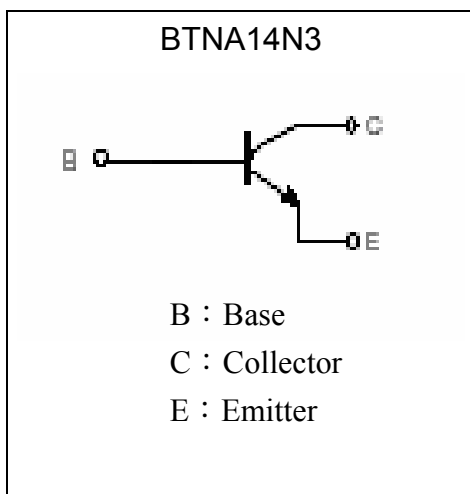
General Purpose NPN Epitaxial Planar Transistor

BTNA14N3

Description

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

Equivalent Circuit



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	30	V
Collector-Emitter Voltage	VCEO	30	V
Emitter-Base Voltage	VEBO	10	V
Collector Current	IC	0.3	A
Power Dissipation	Pd	225	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C



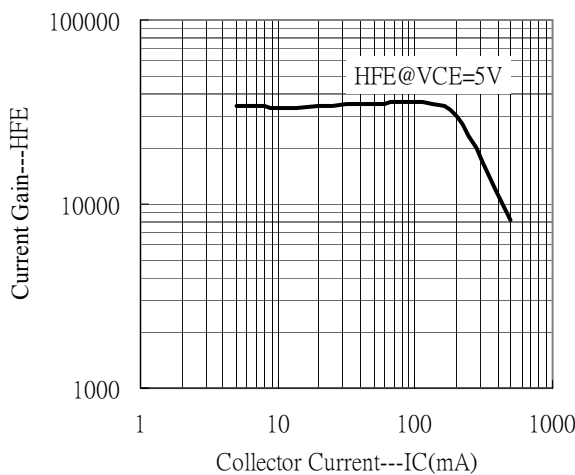
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA
BVCES	30	-	-	V	IC=100uA
BVEBO	10	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCE=30V
IEBO	-	-	100	nA	VEB=10V
*VCE(sat)	-	-	1.5	V	IC=100mA, IB=0.1mA
*VBE(on)	-	-	2.0	V	VCE=5V, IC=100mA
*hFE1	10K	-	-		VCE=5V, IC=10mA
*hFE2	20K	-	-		VCE=5V, IC=100mA
fT	125	-	-	MHz	VCE=5V, IC=10mA, f=100MHz
Cob	-	-	6	pF	VCB=10V, f=1MHz

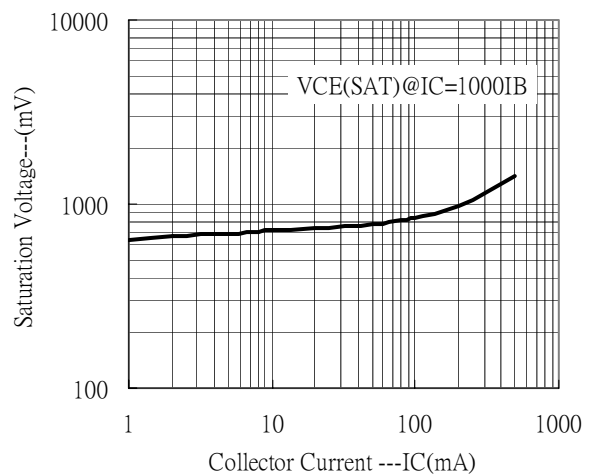
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Characteristic Curves

Current Gain vs Collector Current

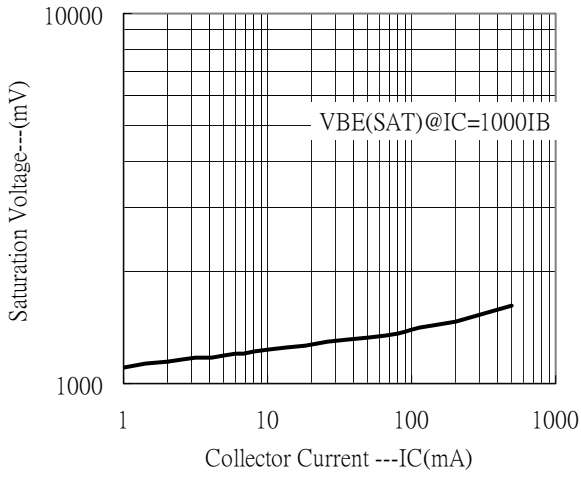


Saturation Voltage vs Collector Current

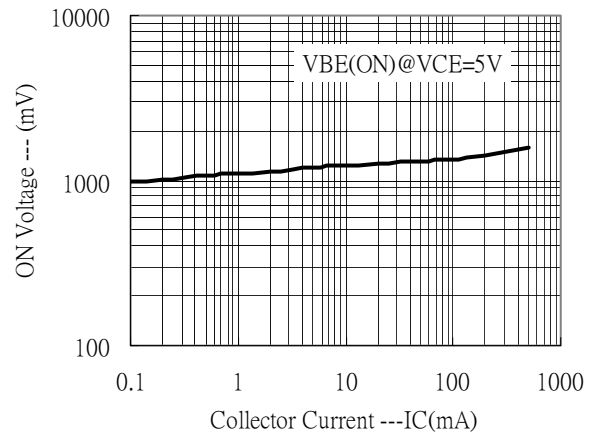




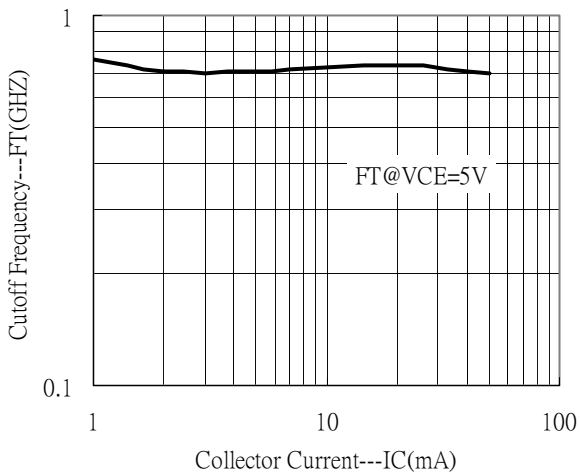
Saturation Voltage vs Collector Current



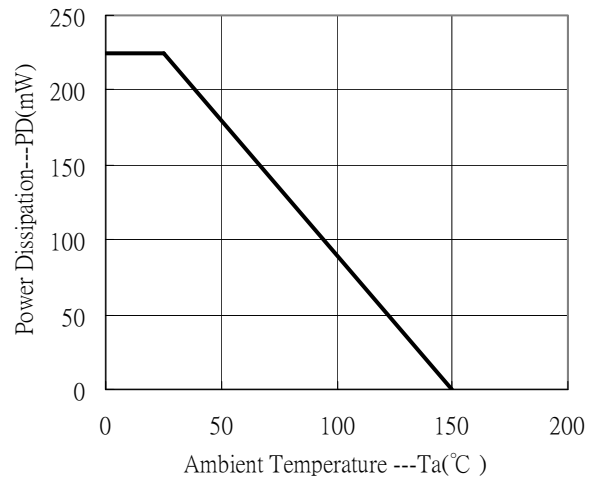
ON Voltage vs Collector Current



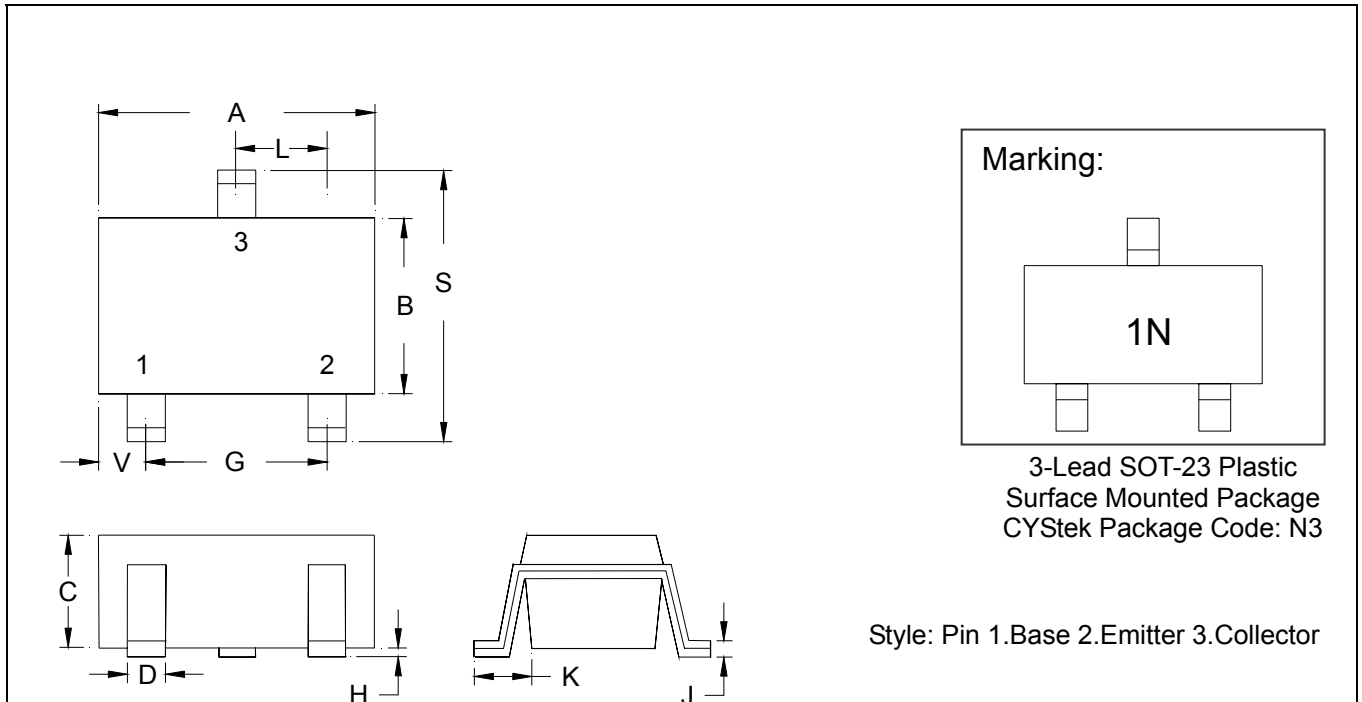
Cutoff Frequency vs Collector Current



PD - Ta



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.Dimension and tolerance based on our Spec. dated Feb. 18,2002.
 2.Controlling dimension: millimeters.
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 4.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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