

General Purpose PNP Epitaxial Planar Transistor

BTA1514N3

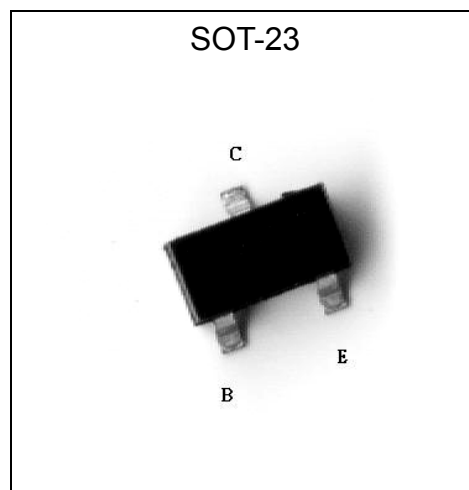
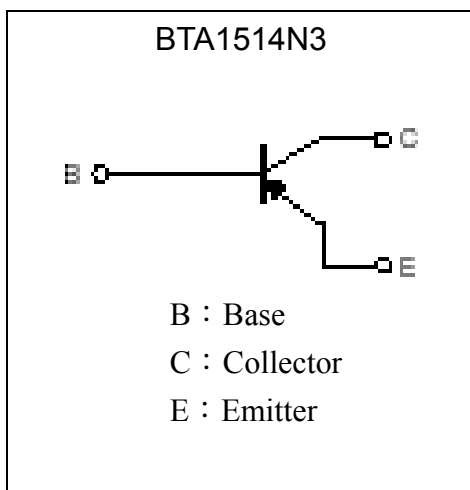
Description

- The BTA1514N3 is designed for general purpose applications requiring high breakdown voltage.

Features

- High collector-emitter breakdown voltage. ($BV_{CEO}=150V @ I_C=1mA$)
- Complement to NPN type BTC3906N3

Equivalent Circuit



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	-160	V
Collector-Emitter Voltage	VCEO	-150	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current	IC	600	mA
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	-160	-	-	V	IC=-50uA
BVCEO	-150	-	-	V	IC=-1mA
BVEBO	-5	-	-	V	IE=-50uA
ICBO	-	-	-50	nA	VCB=-120V
IEBO	-	-	-50	nA	VEB=-4V
*VCE(sat)1	-	-	-0.2	V	IC=-10mA, IB=-1mA
*VCE(sat)2	-	-	-0.5	V	IC=-50mA, IB=-5mA
*VBE(sat)1	-	-	-1	V	IC=-10mA, IB=-1mA
*VBE(sat)2	-	-	-1	V	IC=-50mA, IB=-5mA
*hFE1	50	-	-	-	VCE=-5V, IC=-1mA
*hFE2	60	-	-	-	VCE=-5V, IC=-10mA
*hFE3	50	-	-	-	VCE=-5V, IC=-50mA
*hFE4	52	-	390	-	VCE=-6V, IC=-2mA
fT	100	-	-	MHz	VCE=-30V, IE=10mA, f=100MHz
Cob	-	-	6	pF	VCB=-30V, IE=0A, f=1MHz

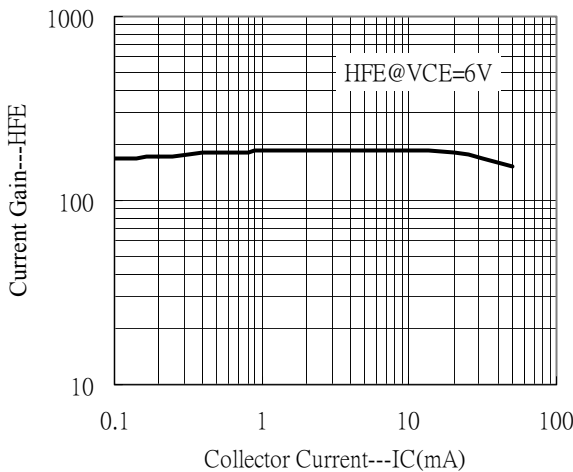
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Classification Of hFE4

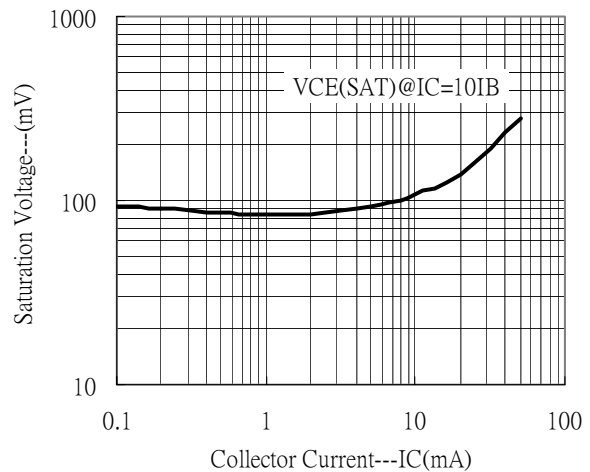
Rank	K	P	Q	R
Range	52~120	82~180	120~270	180~390

Characteristic Curves

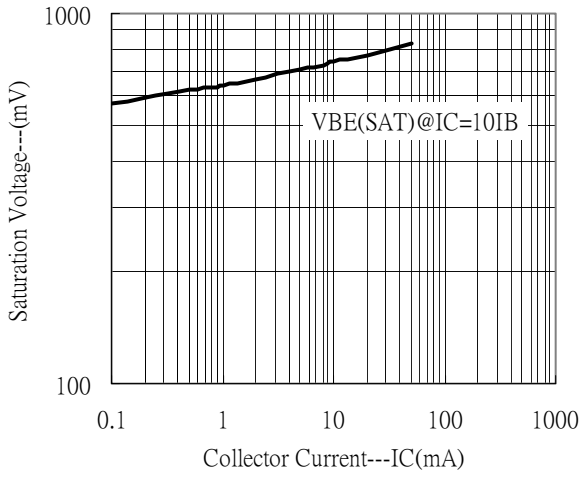
Current Gain vs Collector Current



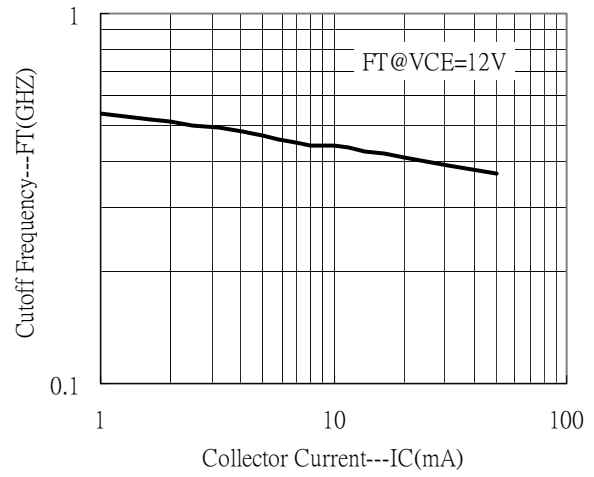
Saturation Voltage vs Collector Current



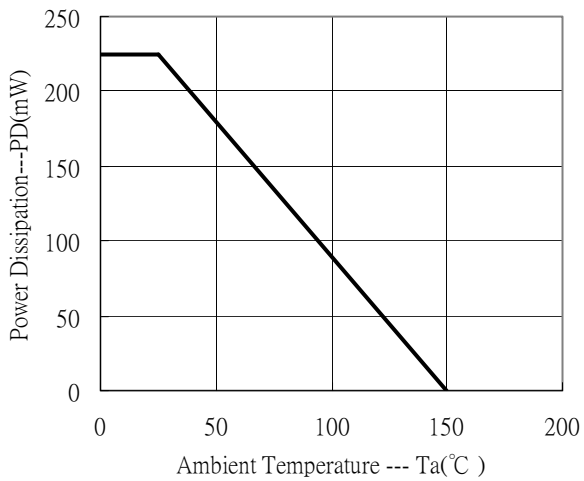
Saturation Voltage vs Collector Current



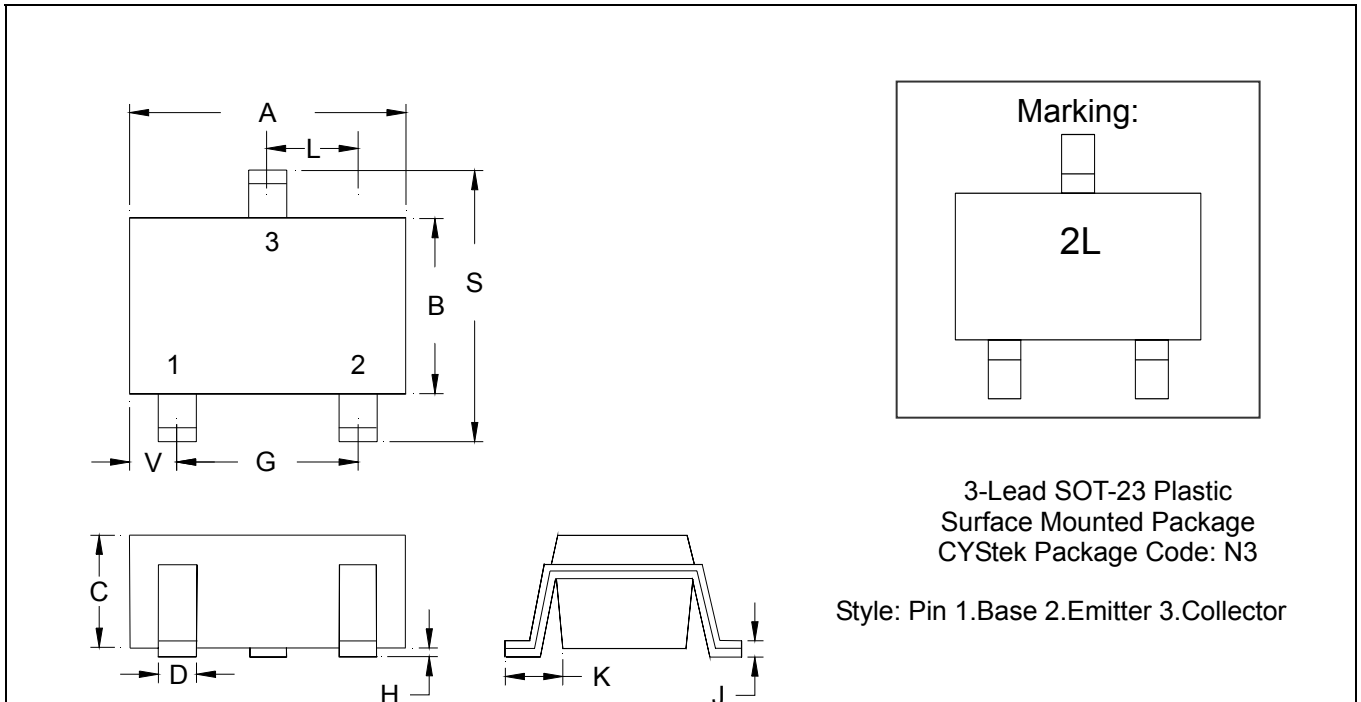
Cutoff Frequency vs Collector Current



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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