General Purpose PNP Epitaxial Planar Transistor

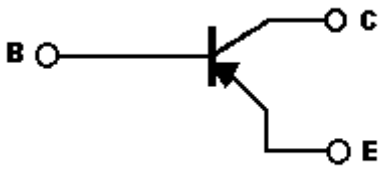
BTA1579S3

Description

- The BTP1579S3 is designed for high voltage amplification application.
- High BV_{CEO}, BV_{CEO}= -120V
- Complementary to BTC4102S3.

Symbol

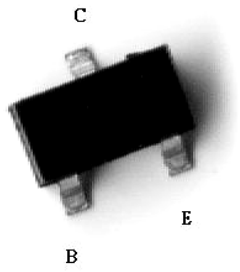
BTA1579S3



B：Base
C：Collector
E：Emitter

Outline

SOT-323



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-120	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-50	mA
Power Dissipation	Pd	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-120	-	-	V	I_C=-50μA
BV_{CEO}	-120	-	-	V	I_C=-1mA
BV_{EBO}	-5	-	-	V	I_E=-50μA
I_{CBO}	-	-	-500	nA	V_{CB}=-100V
I_{EBO}	-	-	-500	nA	V_{EB}=-4V
*$V_{CE(sat)}$	-	-	-0.5	V	I_C=-10mA, I_B=-1mA
h_{FE}	56	-	390	-	V_{CE}=-6V, I_C=-2mA
f_T	-	140	-	MHz	V_{CE}=-12V, I_C=-2mA, f=30MHz
Cob	-	3.2	-	pF	V_{CB}=-12V, f=1MHz

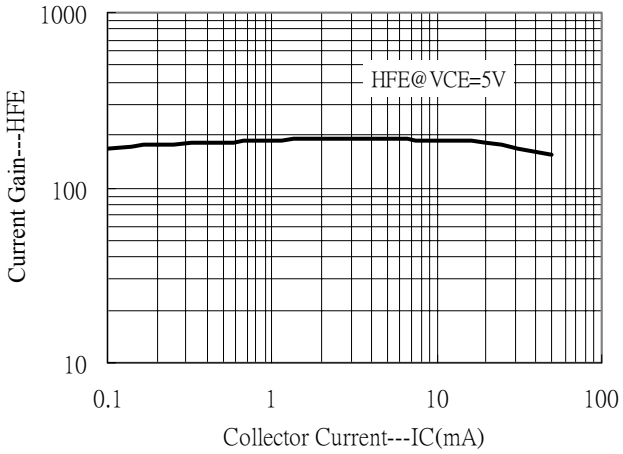
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of h_{FE}

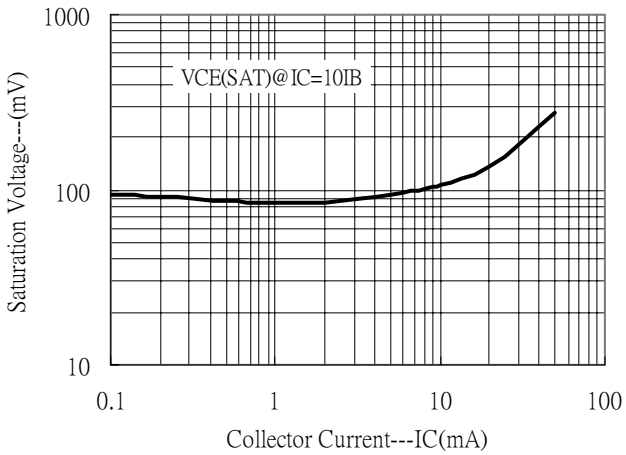
Rank	K	P	Q	R
Range	56~120	82~180	120~270	180~390

Characteristic Curves

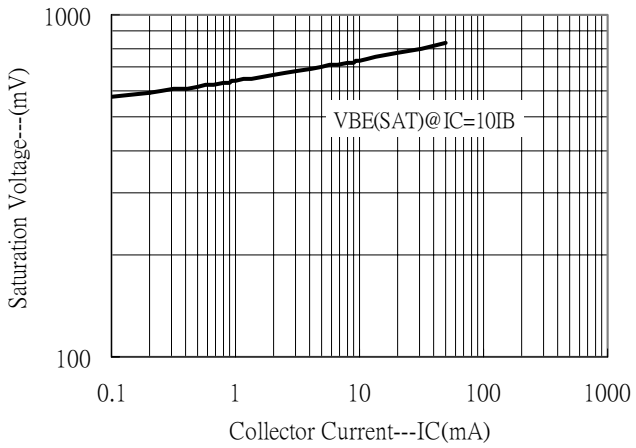
Current Gain vs Collector Current



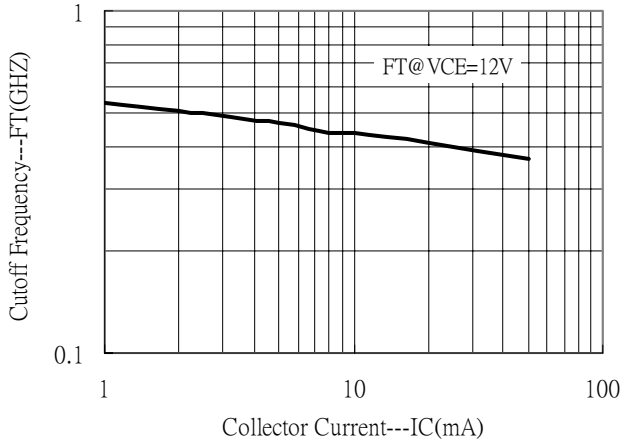
Saturation Voltage vs Collector Current



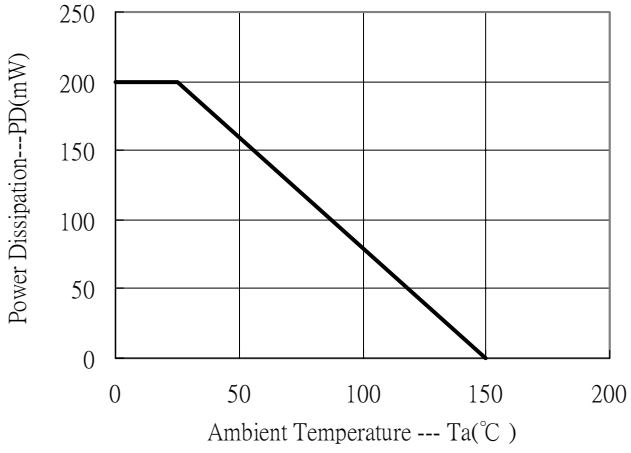
Saturation Voltage vs Collector Current



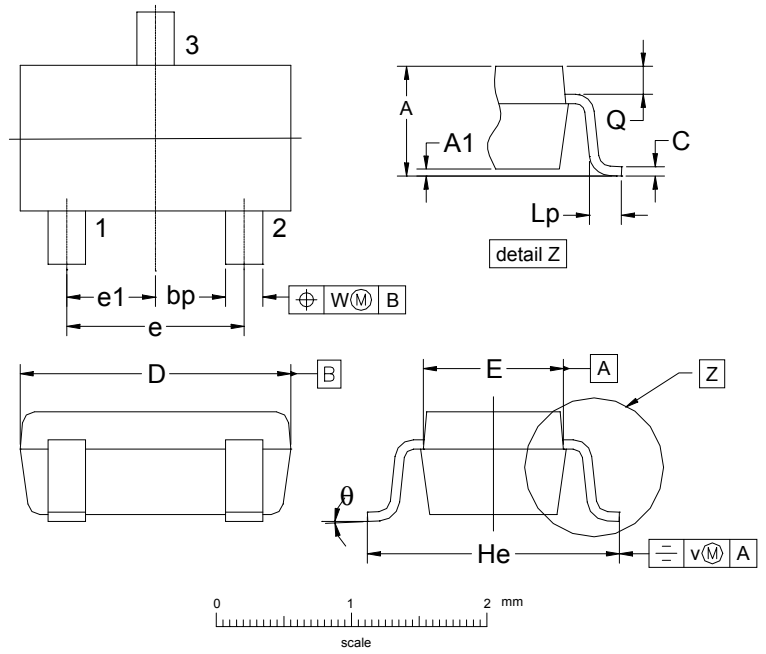
Cutoff Frequency vs Collector Current

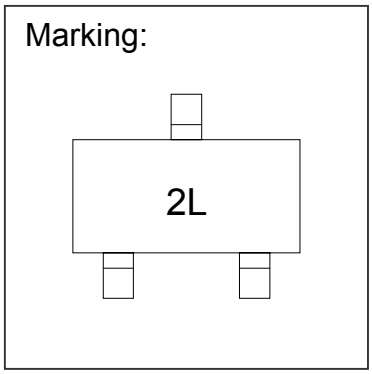


Power Derating Curve



SOT-323 Dimension





3-Lead SOT-323 Plastic
Surface Mounted Package
CYStek Package Code: S3

Style: Pin 1.Base 2.Emitter 3.Collector

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0315	0.0433	0.80	1.10	e1	0.0256	-	0.65	-
A1	0.0000	0.0039	0.00	0.10	He	0.0787	0.0886	2.00	2.25
bp	0.0118	0.0157	0.30	0.40	Lp	0.0059	0.0177	0.15	0.45
C	0.0039	0.0098	0.10	0.25	Q	0.0051	0.0091	0.13	0.23
D	0.0709	0.0866	1.80	2.20	v	0.0079	-	0.2	-
E	0.0453	0.0531	1.15	1.35	w	0.0079	-	0.2	-
e	0.0512	-	1.3	-	θ	-	-	10°	0°

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