General Purpose PNP Epitaxial Planar Transistor

BTP2907AL3

Description

- The BTP2907AL3 is designed for general purpose amplifier applications. It is housed in the SOT-223 package which is designed for medium power surface mount applications.
- Low $V_{CE(sat)}$
- High switching speed.
- Complementary to BTN2222AL3

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	-60	V
Collector-Emitter Voltage	VCEO	-60	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current	IC	-600	mA
Power Dissipation @TC=25℃	Pd	5	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

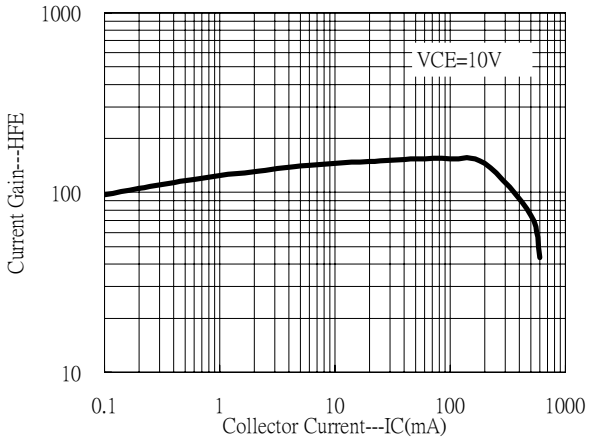
Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-60	-	-	V	IC=-10uA
*BVCEO	-60	-	-	V	IC=-10mA
BVEBO	-5	-	-	V	IE=-10uA
ICBO	-	-	-10	nA	VCB=-50V
ICEX	-	-	-50	nA	VCE=-30V, VBE(OFF)=-0.5V
*VCE(sat)	-	-0.2	-0.4	V	IC=-150mA, IB=-15mA
*VCE(sat)	-	-0.5	-1.6	V	IC=-500mA, IB=-50mA
*VBE(sat)	-	-	-1.3	V	IC=-150mA, IB=-15mA
*VBE(sat)	-	-	-2.6	V	IC=-500mA, IB=-50mA
*hFE	75	-	-	-	VCE=-10V, IC=-100uA
*hFE	100	-	-	-	VCE=-10V, IC=-1mA
*hFE	100	-	-	-	VCE=-10V, IC=-10mA
*hFE	100	-	300	-	VCE=-10V, IC=-150mA
*hFE	50	-	-	-	VCE=-10V, IC=-500mA
fT	200		-	MHz	VCE=-20V, IC=-50mA, f=100MHz
Cob	-	-	8	pF	VCB=-10V, IE=0A,f=1MHz

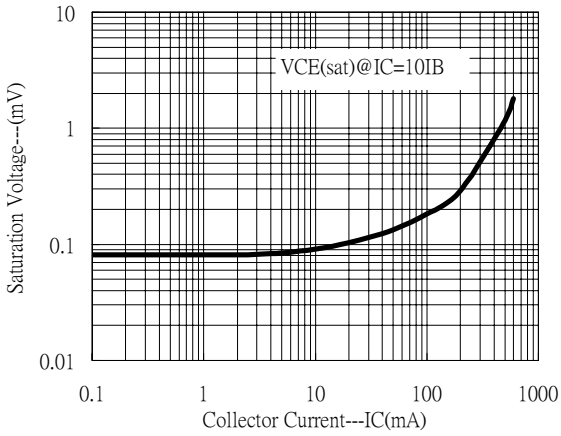
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Characteristic Curves

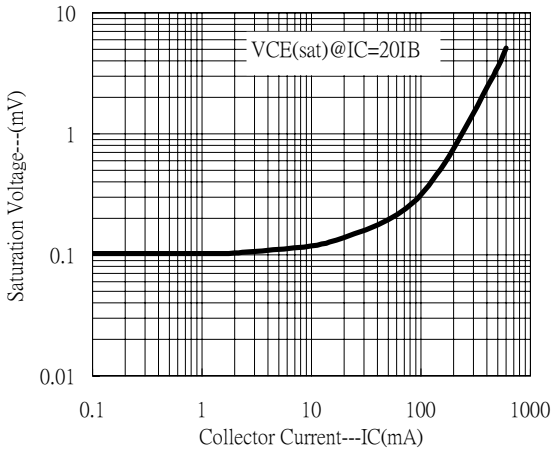
Current Gain vs Collector Current



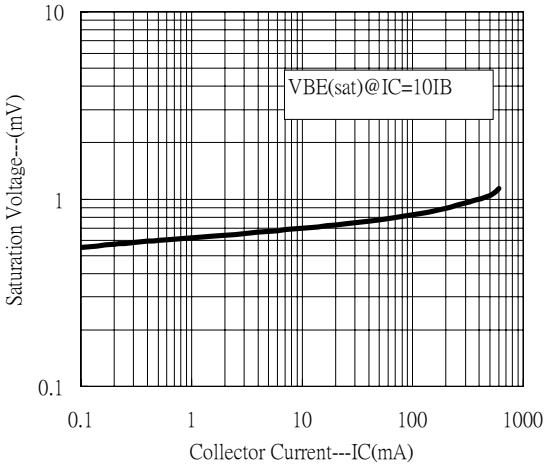
Saturation Voltage vs Collector Current



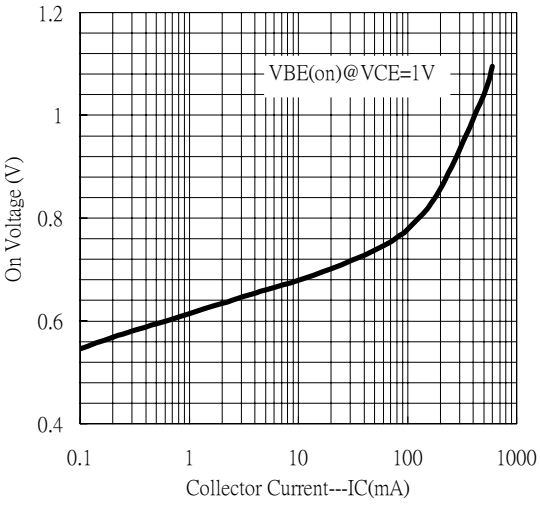
Saturation Voltage vs Collector Current



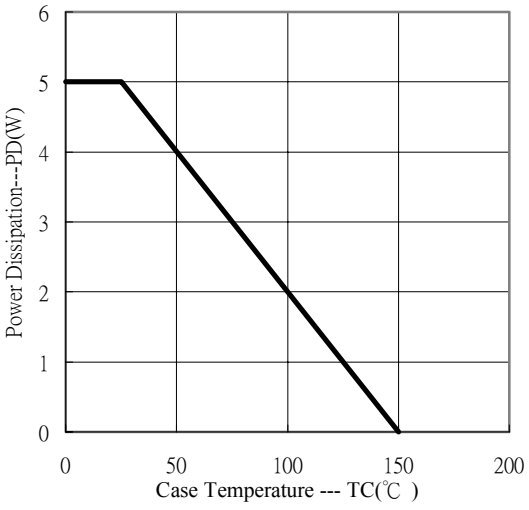
Saturation Voltage vs Collector Current



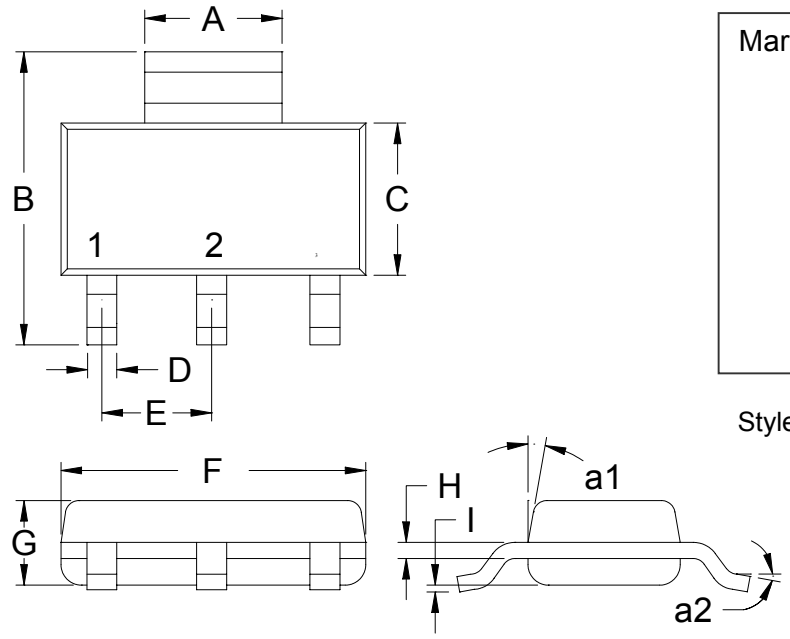
On Voltage vs Collector Current



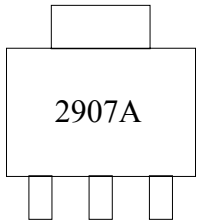
Power Derating Curve



SOT-223 Dimension



Marking:



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

3-Lead SOT-223 Plastic
Surface Mounted Package
CYStek Package Code: L3

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1142	0.1220	2.90	3.10	G	0.0551	0.0709	1.40	1.80
B	0.2638	0.2874	6.70	7.30	H	0.0098	0.0138	0.25	0.35
C	0.1299	0.1457	3.30	3.70	I	0.0008	0.0039	0.02	0.10
D	0.0236	0.0315	0.60	0.80	a1	*13°	-	*13°	-
E	*0.0906	-	*2.30	-	a2	0°	10°	0°	10°
F	0.2480	0.2638	6.30	6.70					

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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