

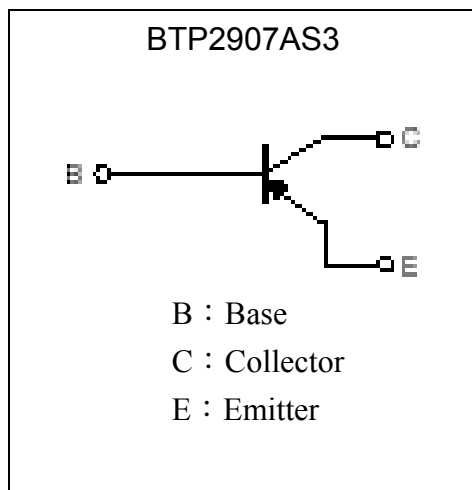
General Purpose PNP Epitaxial Planar Transistor

BTP2907AS3

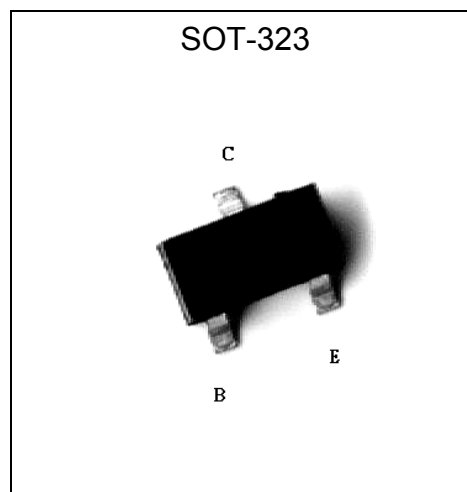
Description

- The BTP2907AS3 is designed for general purpose amplifier applications. It is housed in the SOT-323/SC-70 package which is designed for low power surface mount applications.
- Low $V_{CE(sat)}$
- High switching speed.
- Complementary to BTN2222AS3

Equivalent Circuit



Outline



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 @TA=25°C	Pd	150 (Note 1)	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Note 1:When mounted on a FR-5 board with area measuring 1.0x 0.75x 0.062 in.



Characteristics (Ta=25°C)

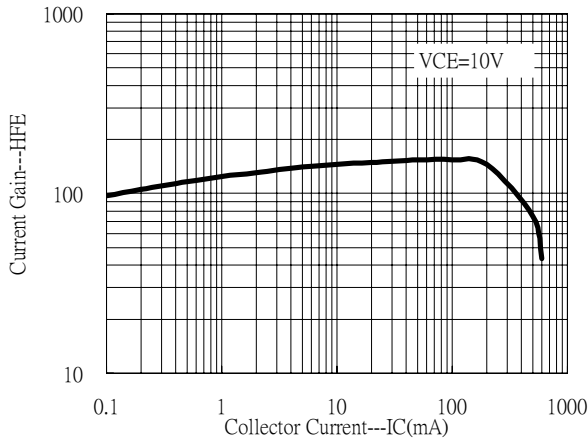
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-60	-	-	V	IC=-10uA
*BVCEO	-60	-	-	V	IC=-10mA
BVEBO	-5	-	-	V	IE=-10uA
ICBO	-	-	-10	nA	VCB=-50V
ICEX	-	-	-50	nA	VCE=-30V, VBE(OFF)=-0.5V
*VCE(sat)	-	-0.2	-0.4	V	IC=-150mA, IB=-15mA
*VCE(sat)	-	-0.5	-1.6	V	IC=-500mA, IB=-50mA
*VBE(sat)	-	-	-1.3	V	IC=-150mA, 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%

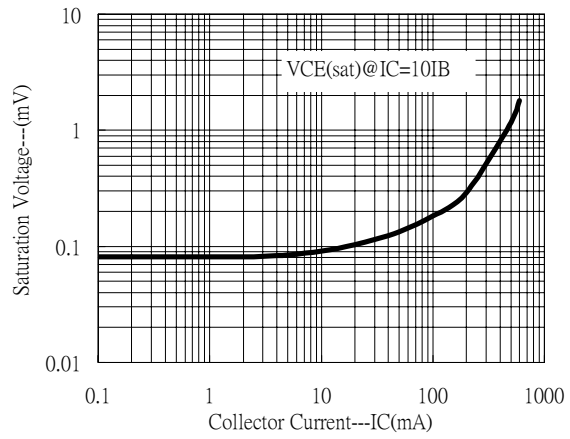


Characteristic Curves

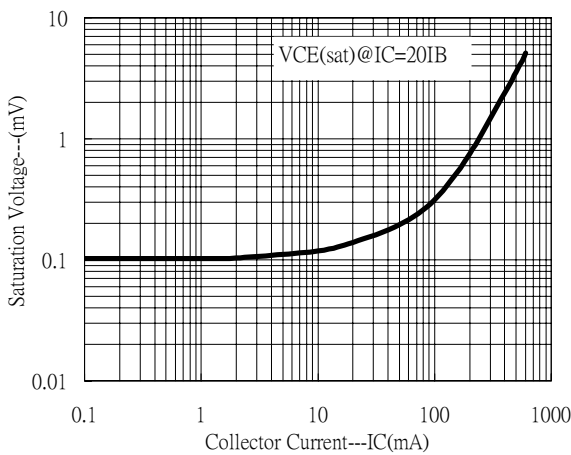
Current Gain vs Collector Current



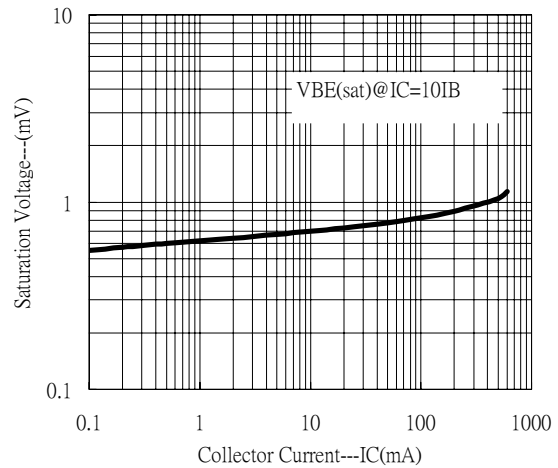
Saturation Voltage vs Collector Current



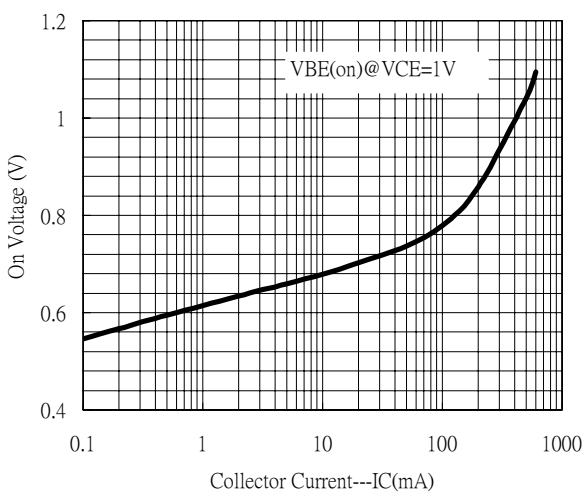
Saturation Voltage vs Collector Current



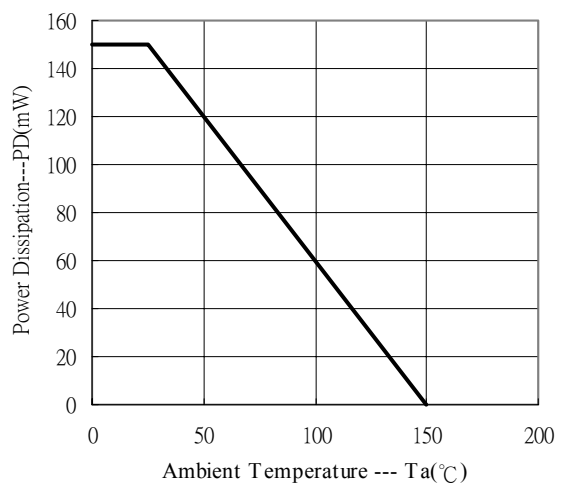
Saturation Voltage vs Collector Current



On Voltage vs Collector Current

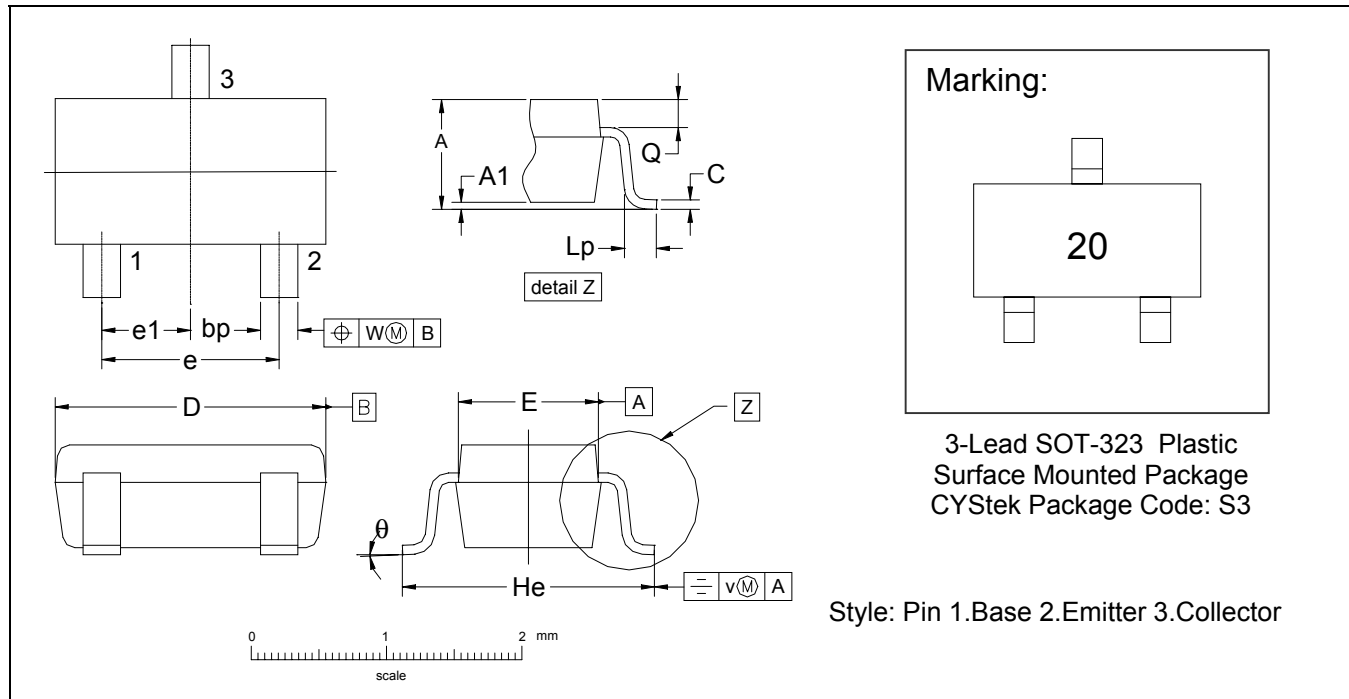


Power Derating Curve





SOT-323 Dimension



*: 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

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