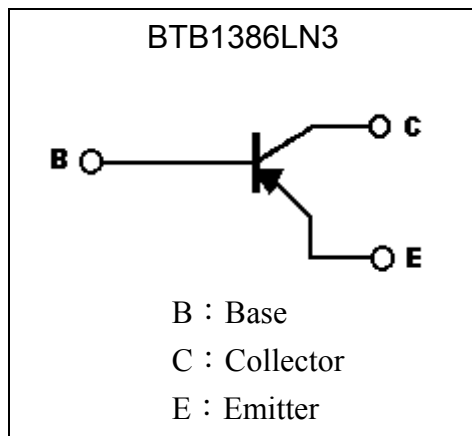
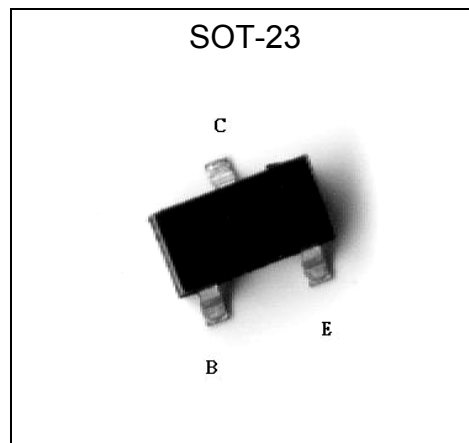


Low Vcesat PNP Epitaxial Planar Transistor

BTB1386LN3

Features

- Low $V_{CE(sat)}$, $V_{CE(sat)} = -0.6$ V (typical), at $I_C / I_B = -4A / -0.1A$
- Excellent DC current gain characteristics
- Complementary to BTB2098LN3

Symbol

Outline

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CB0}	-20	V
Collector-Emitter Voltage	V_{CE0}	-15	V
Emitter-Base Voltage	V_{EB0}	-6	V
Collector Current	$I_C(DC)$	-5	A
	$I_C(Pulse)$	-10 (Note)	
Power Dissipation	P_D	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^\circ\text{C}$

 Note : 1. Single Pulse $P_w \leq 350\mu\text{s}$, Duty $\leq 2\%$.



Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	-20	-	-	V	I _C =-50μA, I _E =0
BV _{CEO}	-15	-	-	V	I _C =-1mA, I _B =0
BV _{EBO}	-6	-	-	V	I _E =-50μA, I _C =0
I _{CB0}	-	-	-0.5	μA	V _{CB} =-15V, I _E =0
I _{EBO}	-	-	-0.5	μA	V _{EB} =-5V, I _C =0
*V _{CE(sat)}	-	-	-1.0	V	I _C =-4A, I _B =-0.1A
*h _{FE}	120	-	560	-	V _{CE} =-2V, I _C =-0.5A
f _T	-	120	-	MHz	V _{CE} =-6V, I _C =-50mA, f=30MHz
C _{ob}	-	60	-	pF	V _{CB} =-20V, f=1MHz

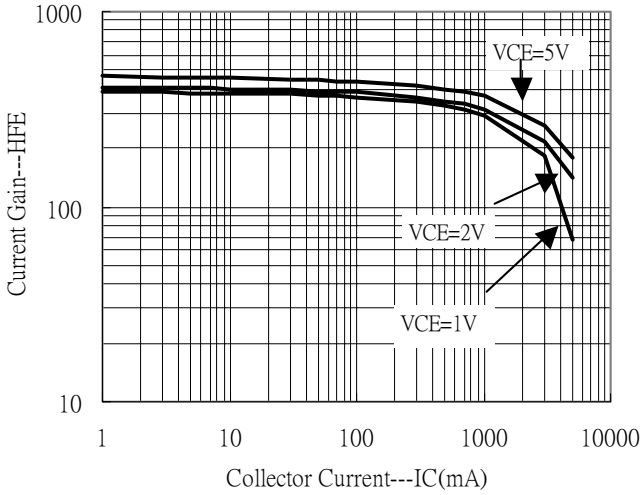
*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of hFE

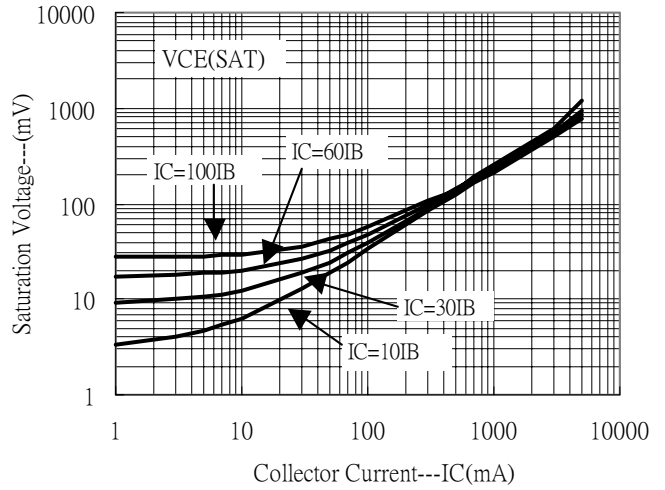
Rank	Q	R	S
Range	120~270	180~390	270~560

Characteristic Curves

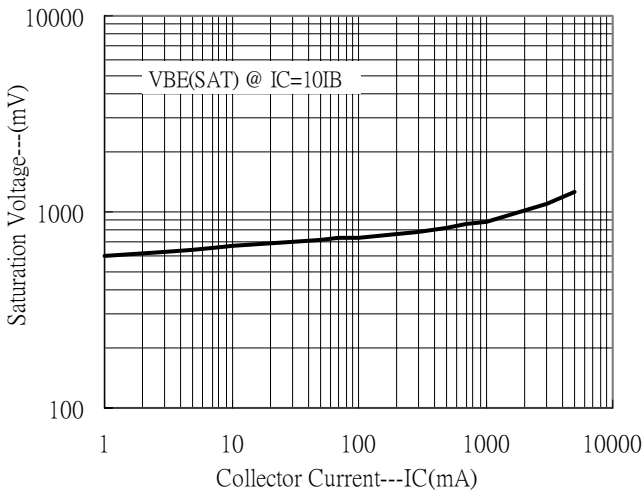
Current Gain vs Collector Current



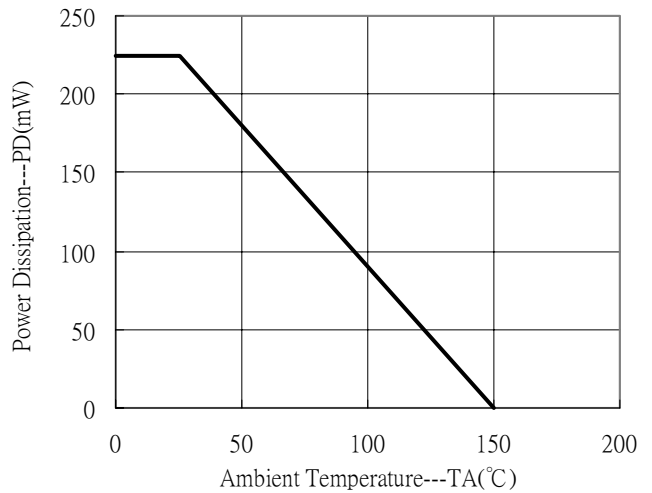
Saturation Voltage vs Collector Current



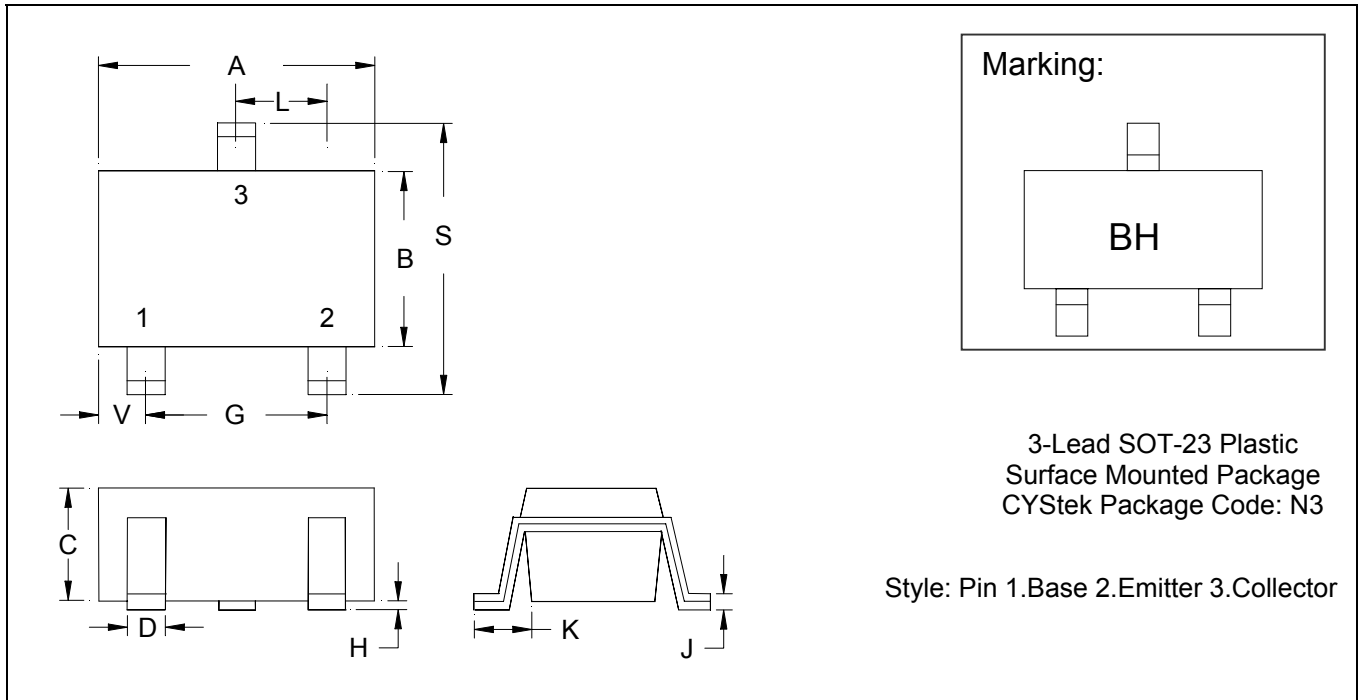
Saturation Voltage vs Collector Current



Power Derating Curve



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:**
- Controlling dimension: millimeters.
 - Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 - 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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