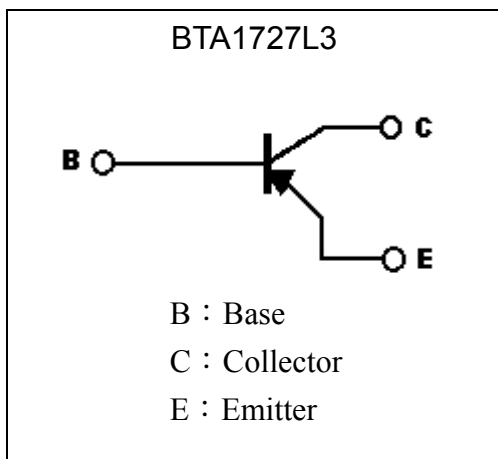
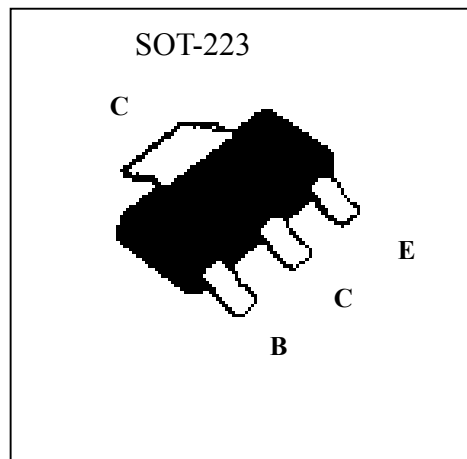


**High Voltage PNP Epitaxial Planar Transistor**

# BTA1727L3

**Features**

- High breakdown voltage,  $BV_{CEO}=-400V$
- Low saturation voltage
- High switching speed.
- Complementary to BTD2568L3
- Pb-free package

**Symbol**

**Outline**

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

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	$V_{CB0}$	-400	V
Collector-Emitter Voltage	$V_{CEO}$	-400	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current(DC)	$I_C$	-300	mA
Collector Current(Pulse)	$I_{CP}$	-1	A
Base Current	$I_B$	-100	mA
Power Dissipation @ $T_c=25^{\circ}C$	$P_d$	5	W
Junction Temperature	$T_j$	150	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55~+150	$^{\circ}C$

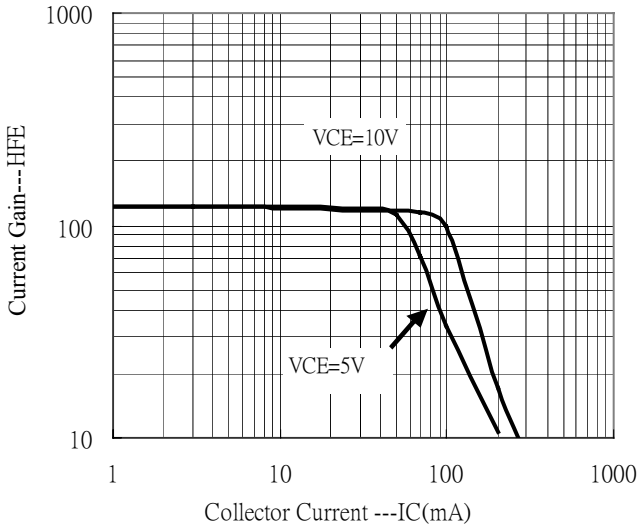
**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>CB0</sub>	-400	-	-	V	I <sub>C</sub> =-100μA, I <sub>E</sub> =0
BV <sub>CE0</sub>	-400	-	-	V	I <sub>C</sub> =-1mA, I <sub>B</sub> =0
BV <sub>EB0</sub>	-6	-	-	V	I <sub>E</sub> =-10μA, I <sub>C</sub> =0
I <sub>CB0</sub>	-	-	-100	nA	V <sub>CB</sub> =-400V, I <sub>E</sub> =0
I <sub>EB0</sub>	-	-	-100	nA	V <sub>EB</sub> =-4V, I <sub>C</sub> =0
*V <sub>CE(sat)1</sub>	-	-	-0.3	V	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA
*V <sub>CE(sat)2</sub>	-	-	-0.5	V	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA
*V <sub>BE(sat)1</sub>	-	-	-0.8	V	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA
*V <sub>BE(sat)2</sub>	-	-	-0.95	V	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA
*V <sub>BE(on)</sub>	-	-	-0.95	V	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA
*h <sub>FE1</sub>	50	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-1mA
*h <sub>FE2</sub>	90	-	260	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA
*h <sub>FE3</sub>	90	-	260	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA
*h <sub>FE4</sub>	40	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-100mA
f <sub>T</sub>	-	90	-	MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA, f=100MHz
Cob	-	7	-	pF	V <sub>CB</sub> =-20V, f=1MHz

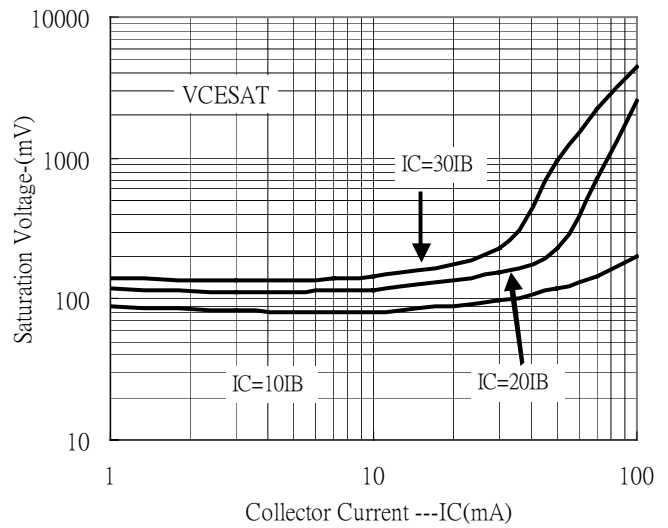
\*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

**Characteristic Curves**

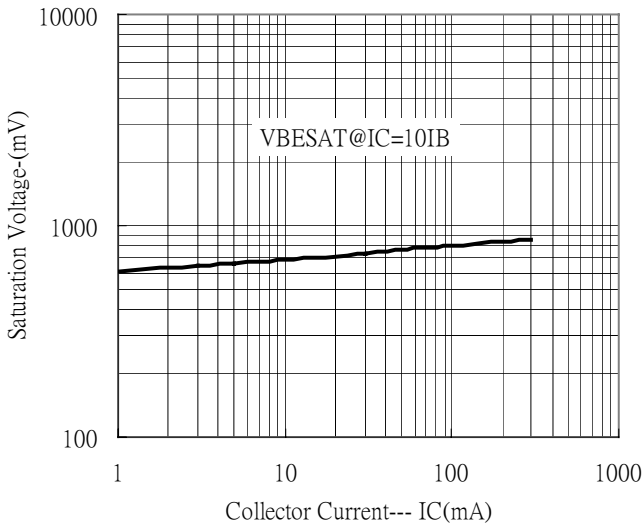
Current Gain vs Collector Current



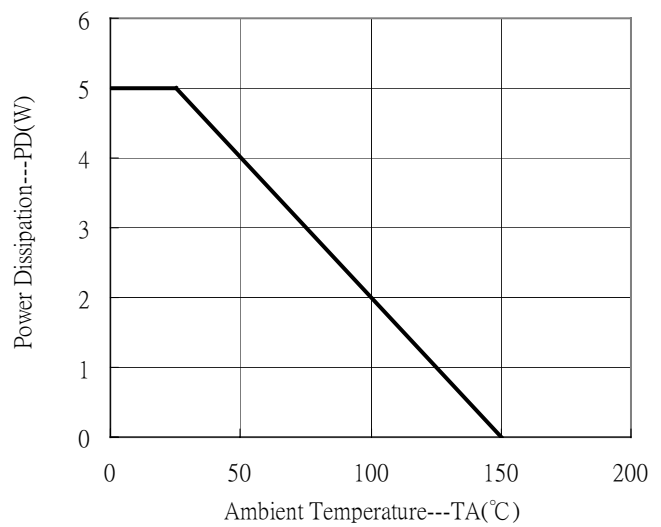
Saturation Voltage vs Collector Current



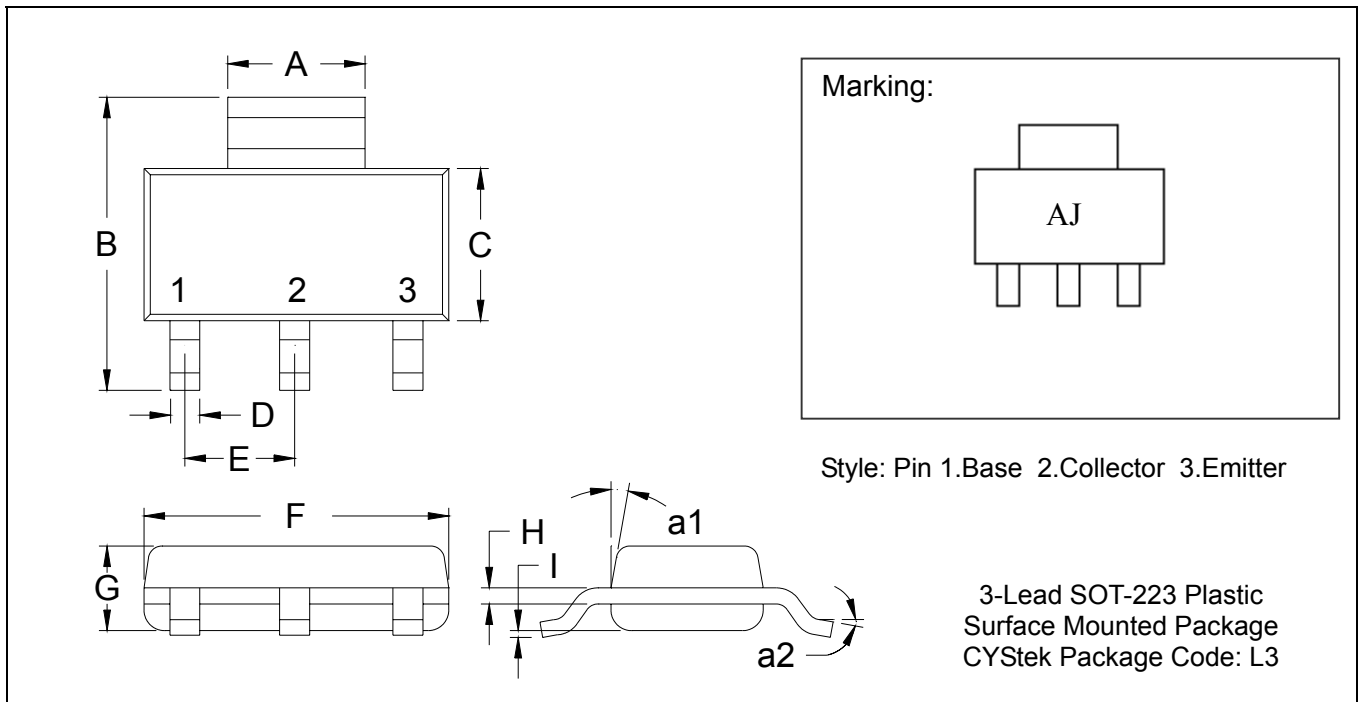
Saturation Voltage vs Collector Current



Power Derating Curve



**SOT-223 Dimension**



\*: 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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