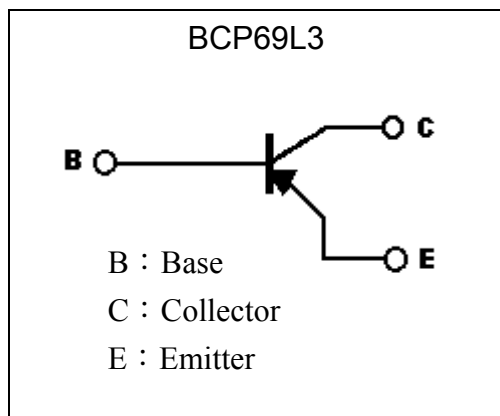
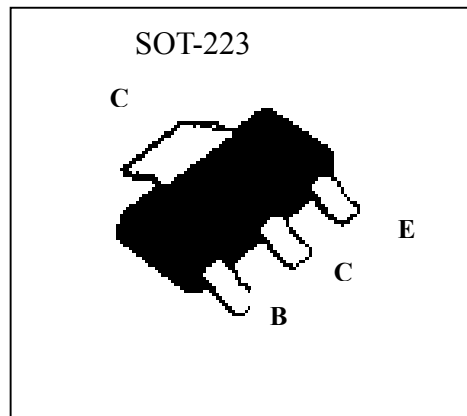


**Medium Power PNP Epitaxial Planar Transistor**

# BCP69L3

**Features**

- For AF driver and output stage
- Low saturation voltage
- High collector current.
- Complementary to BCP68L3
- Pb-free package

**Symbol**

**Outline**

**Absolute Maximum Ratings** (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-25	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-20	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current(DC)	I <sub>C</sub>	-1	A
Collector Current(Pulse)	I <sub>CP</sub>	-2	A
Power Dissipation @T <sub>A</sub> =25°C	P <sub>d</sub>	0.625 (Note 1&2)	W
		1 (Note 1&3)	
		1.4 (Note 1&4)	
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

Note : 1. SOT-223(SC-73) standard mounting conditions.

2. Device mounted on a FR-4 PCB, single side copper, tin plated, standard footprint for SOT-223

 3. Device mounted on a FR-4 PCB, single side copper, tin plated, 1 cm<sup>2</sup> collector mounting pad.

 4. Device mounted on a FR-4 PCB, single side copper, tin plated, 6 cm<sup>2</sup> collector mounting pad.

**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>CB0</sub>	-25	-	-	V	I <sub>C</sub> =-10μA, I <sub>E</sub> =0
BV <sub>CE0</sub>	-20	-	-	V	I <sub>C</sub> =-30mA, I <sub>B</sub> =0
BV <sub>EBO</sub>	-5	-	-	V	I <sub>E</sub> =-10μA, I <sub>C</sub> =0
I <sub>CB0</sub>	-	-	-100	nA	V <sub>CB</sub> =-25V, I <sub>E</sub> =0
I <sub>EBO</sub>	-	-	-10	μA	V <sub>EB</sub> =-5V, I <sub>C</sub> =0
*V <sub>CE(sat)</sub>	-	-	-0.5	V	I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA
*V <sub>BE(on)1</sub>	-	-0.6	-	V	V <sub>CE</sub> =-10V, I <sub>C</sub> =-5A
*V <sub>BE(on)2</sub>	-	-	-1.0	V	V <sub>CE</sub> =-1V, I <sub>C</sub> =-1A
*h <sub>FE1</sub>	50	-	-	-	V <sub>CE</sub> =-10V, I <sub>C</sub> =-5mA
*h <sub>FE2</sub>	160	-	400	-	V <sub>CE</sub> =-1V, I <sub>C</sub> =-500mA
f <sub>T</sub>	-	100	-	MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-100mA, f=100MHz

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

**Classification Of h<sub>FE</sub> 2**

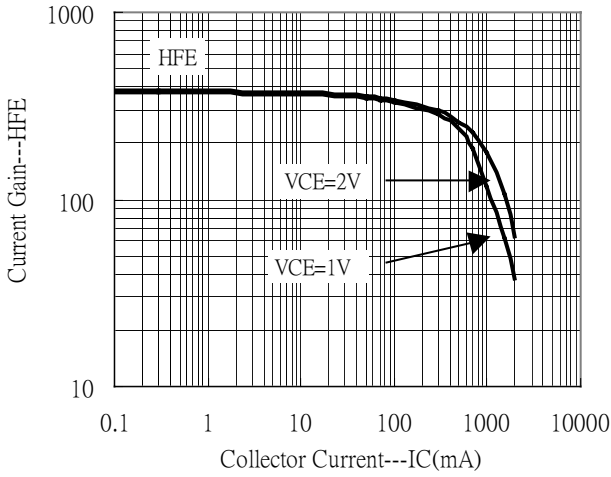
Rank	-16	-25
Range	100~250	160~375

**Ordering Information**

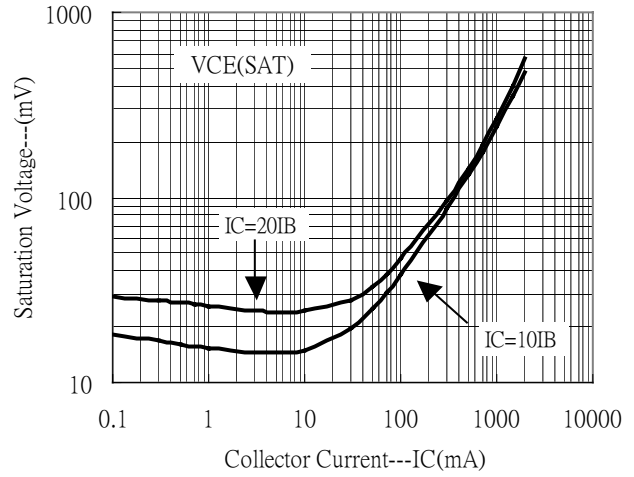
Device	Package	Shipping	Marking
BCP69L3	SOT-223 (Pb-free)	2500 pcs / Tape & Reel	BCP69

**Characteristic Curves**

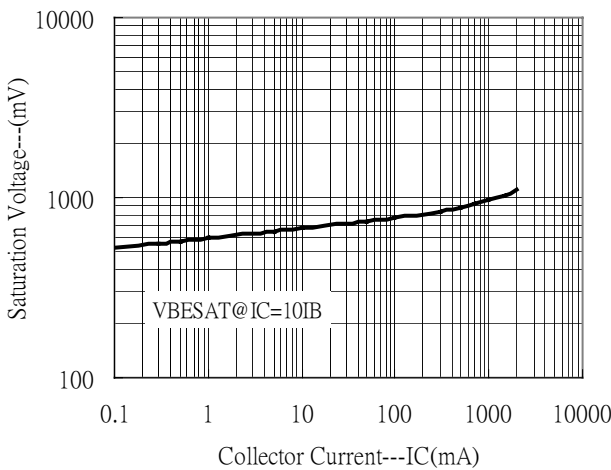
Current Gain vs Collector Current



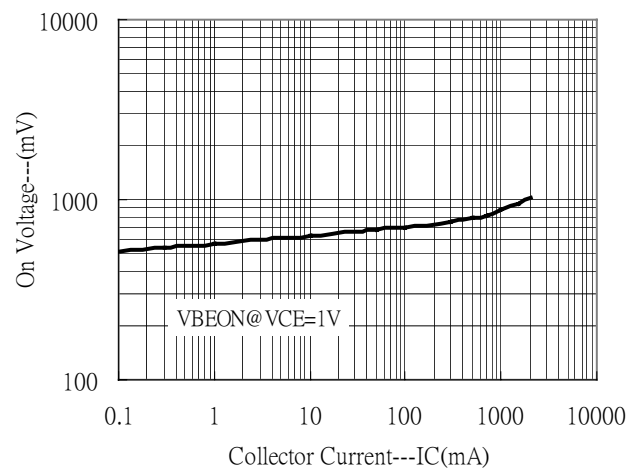
Saturation Voltage vs Collector Current



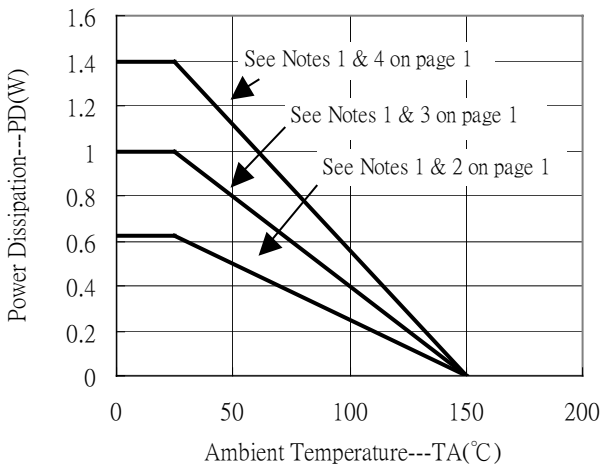
Saturation Voltage vs Collector Current



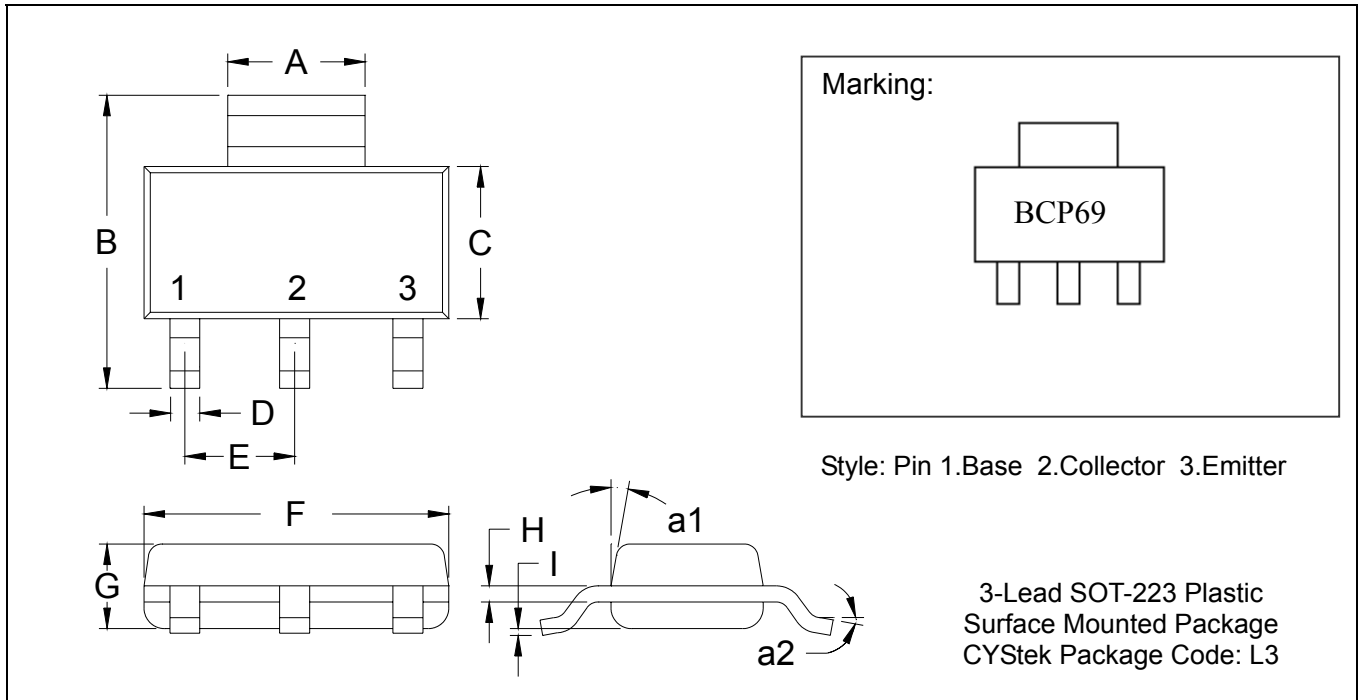
On Voltage vs Collector Current



Power Derating Curves



**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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