

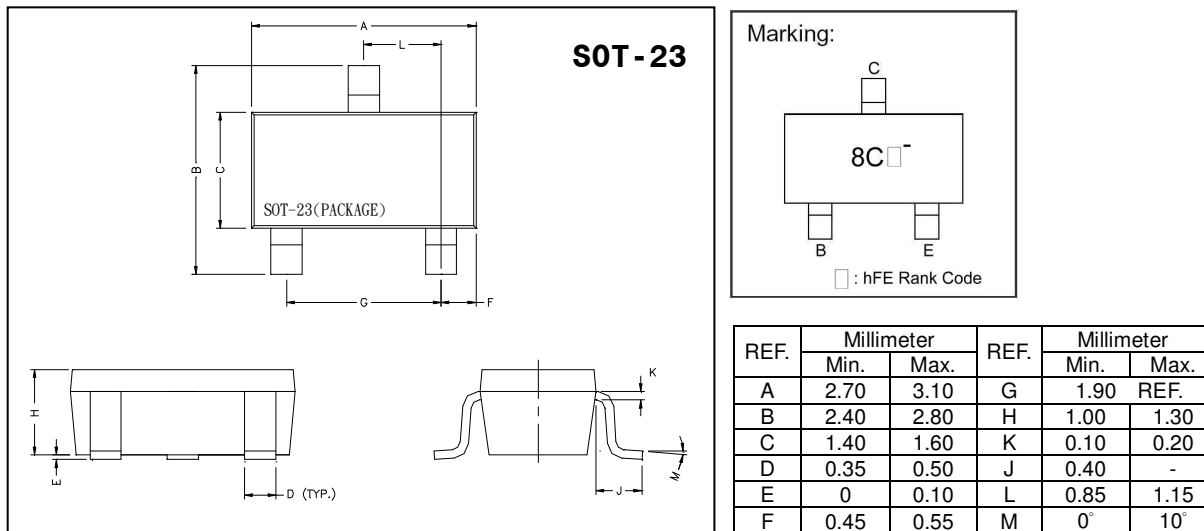
## GBC848

### NPN EPITAXIAL PLANAR TRANSISTOR

#### Description

The GBC848 is designed for switching and AF amplifier application, suitable for automatic insertion in thick and thin-film circuits.

#### Package Dimensions



#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C
Collector to Base Voltage	V <sub>CB0</sub>	30	V
Collector to Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter to Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	100	mA
Total Power Dissipation	P <sub>D</sub>	225	mW

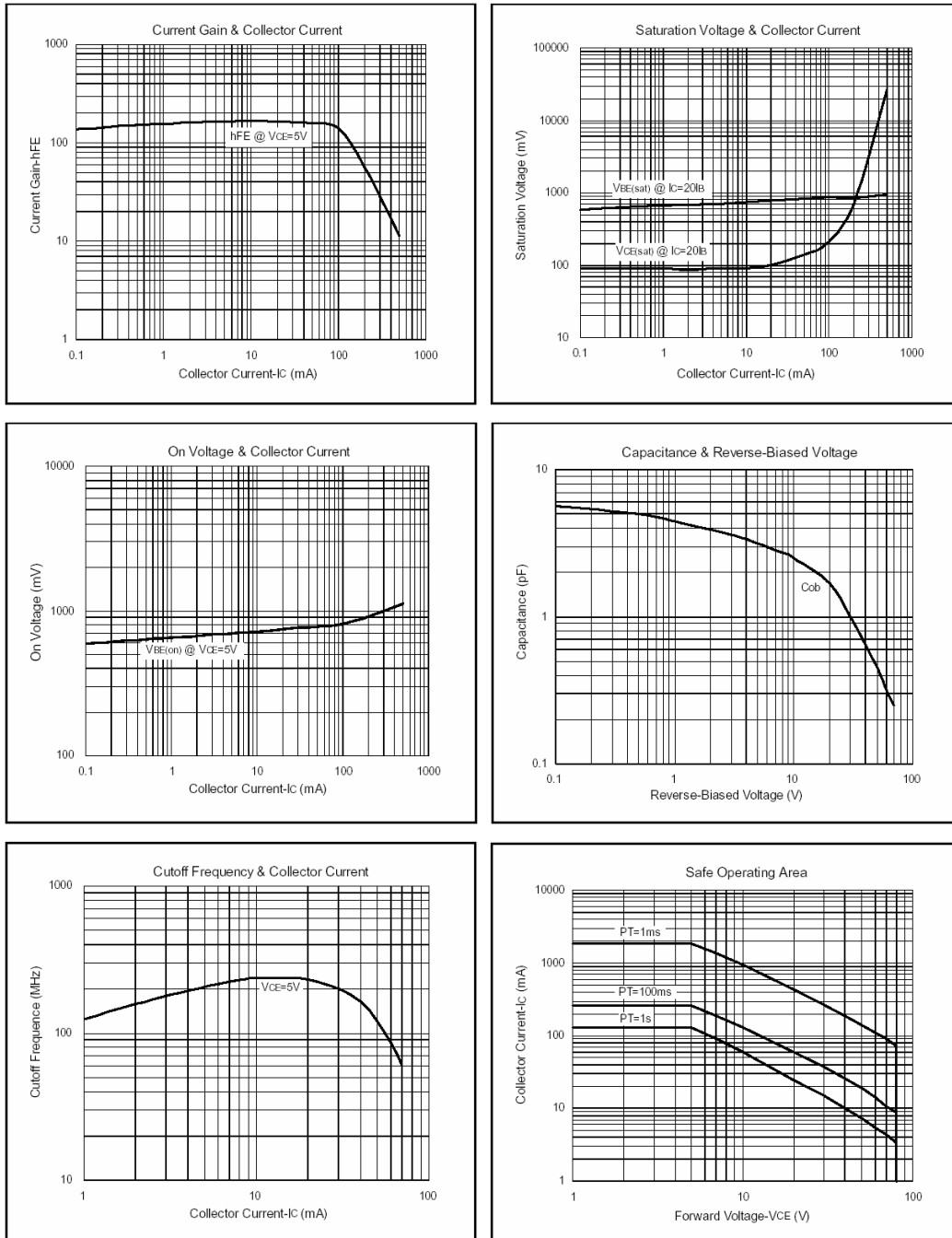
#### Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V <sub>CB0</sub>	30	-	-	V	I <sub>C</sub> =100uA
V <sub>CEO</sub>	30	-	-	V	I <sub>C</sub> =1mA
V <sub>EBO</sub>	5	-	-	V	I <sub>E</sub> =10uA
I <sub>CB0</sub>	-	-	15	nA	V <sub>CB</sub> =30V
V <sub>CE(sat)1</sub>	-	90	250	mV	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA
V <sub>CE(sat)2</sub>	-	200	600	mV	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA
V <sub>BE(sat)1</sub>	-	700	-	mV	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA
V <sub>BE(sat)2</sub>	-	900	-	mV	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA
V <sub>BE(on)1</sub>	580	-	700	mV	V <sub>CE</sub> =5V, I <sub>C</sub> =2mA
V <sub>BE(on)2</sub>	-	-	770	mV	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA
h <sub>FE</sub>	110	-	800		V <sub>CE</sub> =5V, I <sub>C</sub> =2mA
f <sub>T</sub>	-	300	-	MHz	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA
C <sub>ob</sub>	-	3.5	6	pF	V <sub>CB</sub> =10V, f=1MHz, I <sub>E</sub> =0A

## Classification Of hFE

Rank	A	B	C
hFE	110-220	200-450	420-800

## Characteristics Curve



**Important Notice:**

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of GTM.
- GTM reserves the right to make changes to its products without notice.
- GTM semiconductor products are not warranted to be suitable for use in life-support Applications, or systems.
- GTM assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

**Head Office And Factory:**

- **Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.  
TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- **China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China  
TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165