

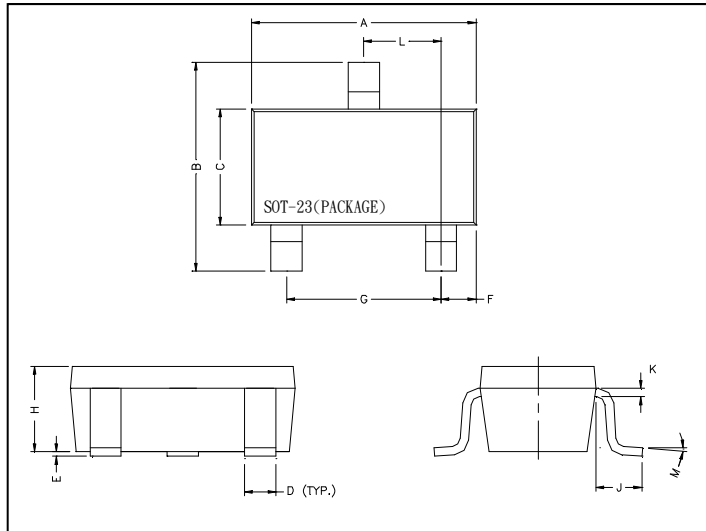
GMBT9013

NPN EPITAXIAL TRANSISTOR

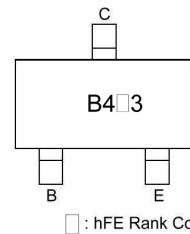
Description

The GMBT9013 is designed for use in 1W output amplifier of portable radios in class B push-pull operation.

Package Dimensions



Marking:



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	1.90	REF.
B	2.40	2.80	H	1.00	1.30
C	1.40	1.60	K	0.10	0.20
D	0.35	0.50	J	0.40	-
E	0	0.10	L	0.85	1.15
F	0.45	0.55	M	0°	10°

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55 ~ +150	°C
Collector to Base Voltage	VCBO	40	V
Collector to Emitter Voltage	VCEO	20	V
Emitter to Base Voltage	VEBO	5	V
Collector Current	IC	500	mA
Total Power Dissipation	PD	225	mW

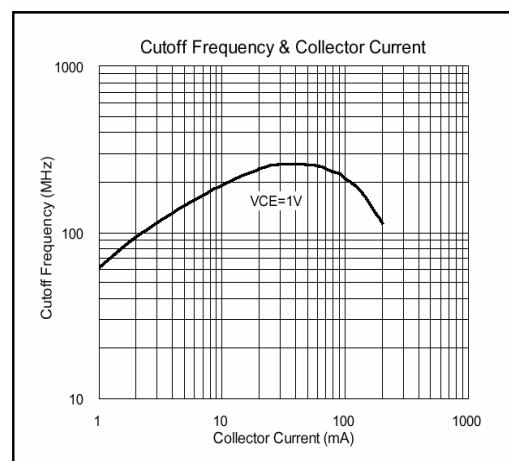
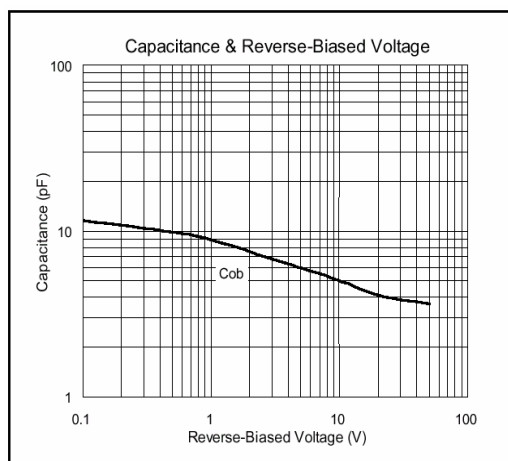
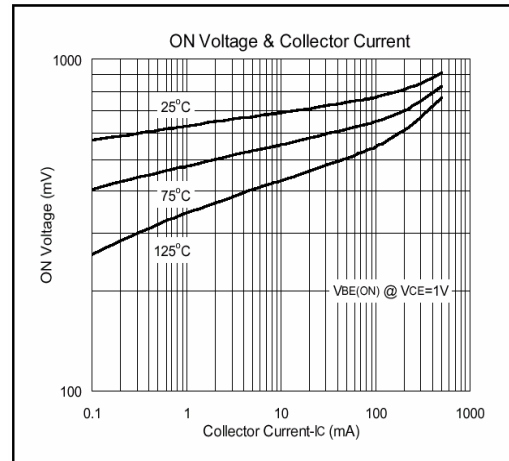
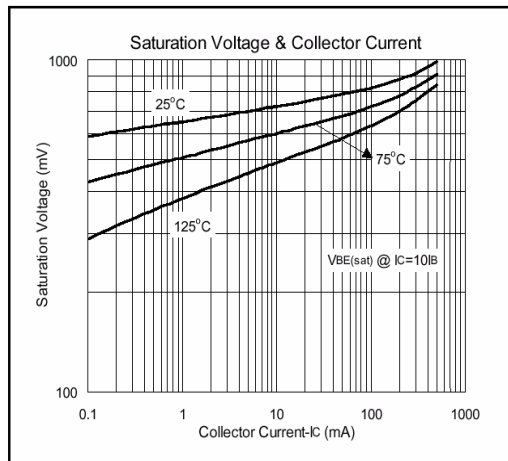
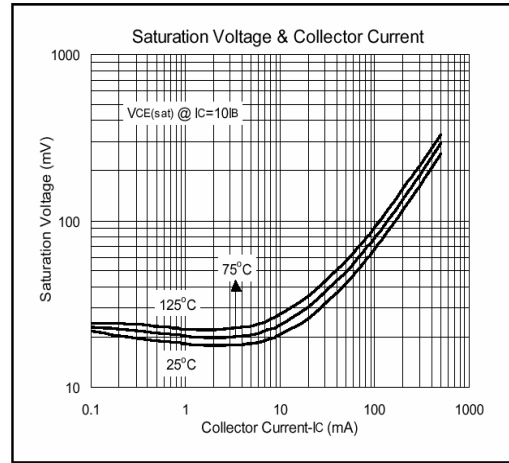
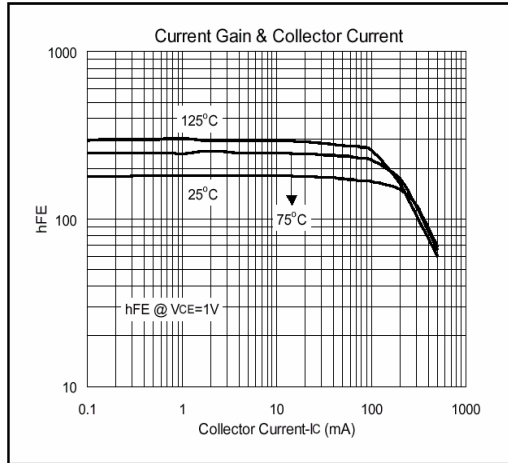
Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	IC=100uA, IE=0
BVCEO	20	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=100uA, IC=0
ICBO	-	-	100	nA	VCE=25V, IE=0
IEBO	-	-	100	nA	VEB=3V, IC=0
VCE(sat)	-	-	0.6	V	IC=500mA, IB=50mA
VBE(sat)	-	-	1.2	V	IC=500mA, IB=50mA
VBE(on)	-	-	0.9	V	VCE=1V, IC=10mA
HFE1	112	180	300		VCE=1V, IC=50mA
HFE2	40	-	-		VCE=1V, IC=500mA
fT	100	-	-	MHz	VCE=1V, IC=10mA, f=100MHz
Cob	-	-	8	pF	VCB=10V, f=1MHz, IE=0

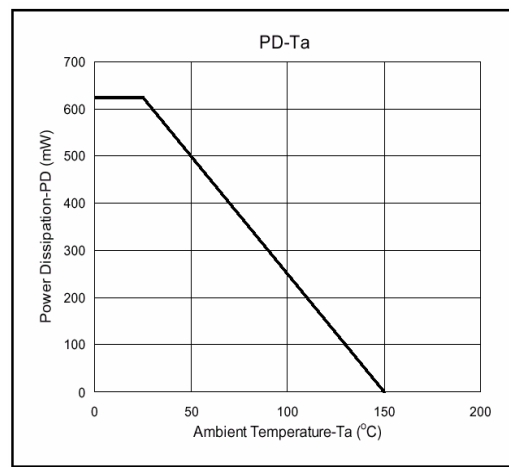
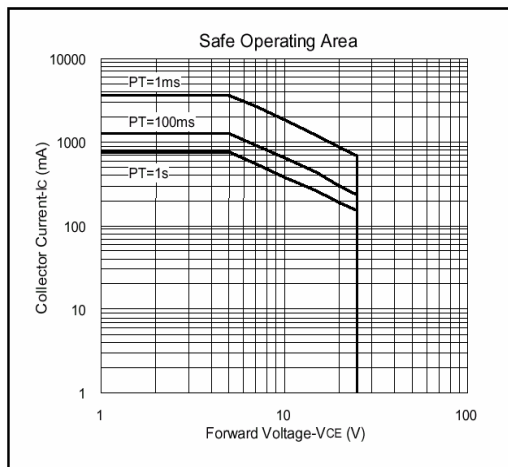
Classification Of hFE1

Rank	G	H	L
hFE	112-166	144-202	176-300

Characteristics Curve



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