

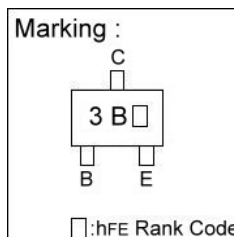
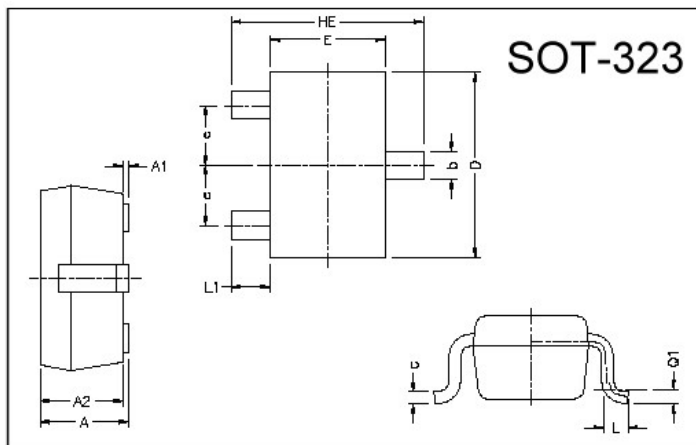
GSMBT9013

NPN EPITAXIAL TRANSISTOR

Description

The GSMBT9013 is designed for use in 1W output amplifier of portable radios in class B push-pull operation.

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42 REF.	
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T _j	+150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C
Collector to Base Voltage	V _{CB0}	40	V
Collector to Emitter Voltage	V _{CE0}	20	V
Emitter to Base Voltage	V _{EB0}	5	V
Collector Current	I _C	500	mA
Total Power Dissipation	PD	225	mW

Characteristics at Ta = 25°C

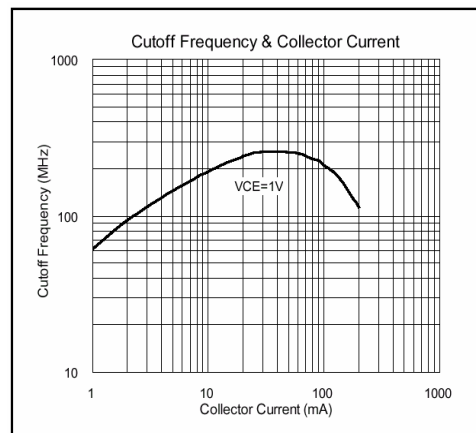
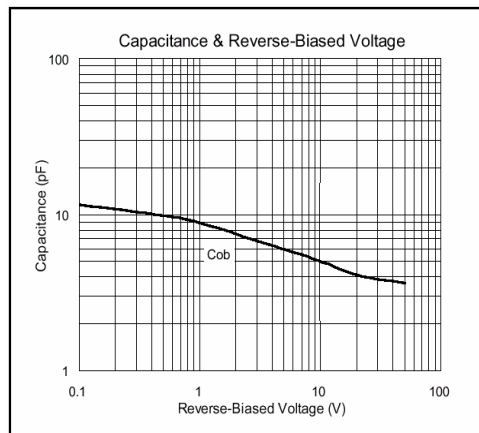
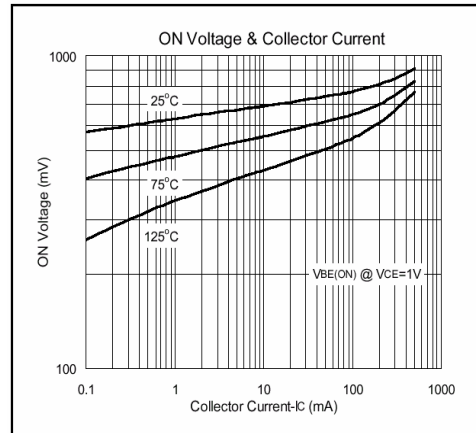
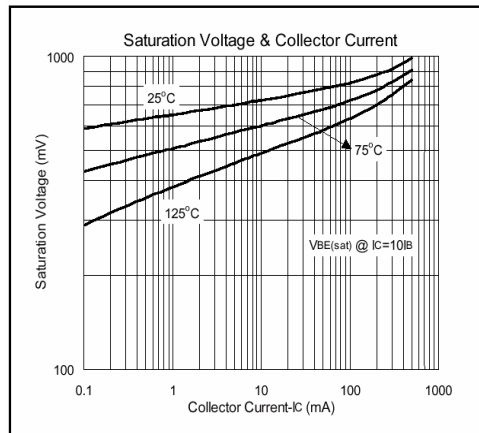
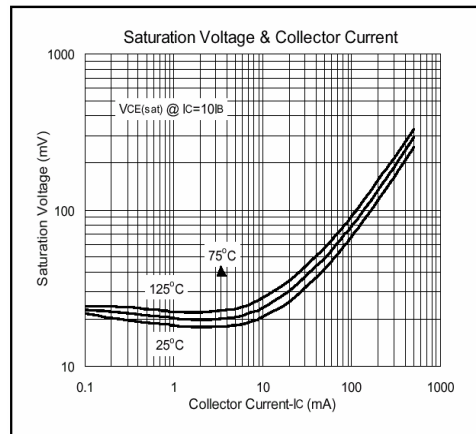
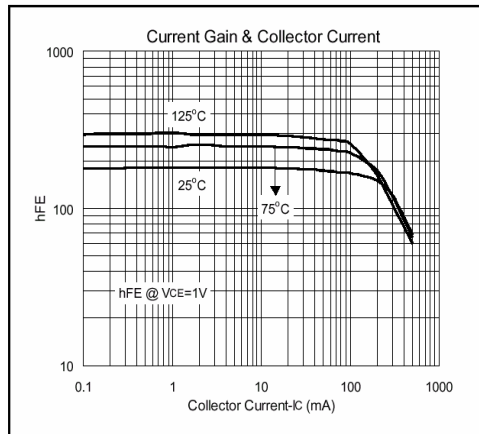
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	40	-	-	V	I _C =100μA, I _E =0
BV _{CE0}	20	-	-	V	I _C =1mA, I _B =0
BV _{EB0}	5	-	-	V	I _E =100μA, I _C =0
IC _{B0}	-	-	100	nA	V _{CB} =25V, I _E =0
IE _{B0}	-	-	100	nA	V _{EB} =3V, I _C =0
*V _{CE(sat)}	-	-	0.6	V	I _C =500mA, I _B =50mA
*V _{BE(sat)}	-	-	1.2	V	I _C =500mA, I _B =50mA
V _{BE(on)}	-	-	0.9	V	V _{CE} =1V, I _C =10mA
*h _{FE1}	112	180	300		V _{CE} =1V, I _C =50mA
*h _{FE2}	40	-	-		V _{CE} =1V, I _C =500mA
f _T	100	-	-	MHz	V _{CE} =1V, I _C =10mA, f=100MHz
C _{ob}	-	-	8	pF	V _{CB} =10V, f=1MHz

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

Classification Of hFE1

Rank	3BG	3BH	3BL
Range	112 - 166	144 - 202	176 - 300

Characteristics Curve



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