

GMBT194A NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

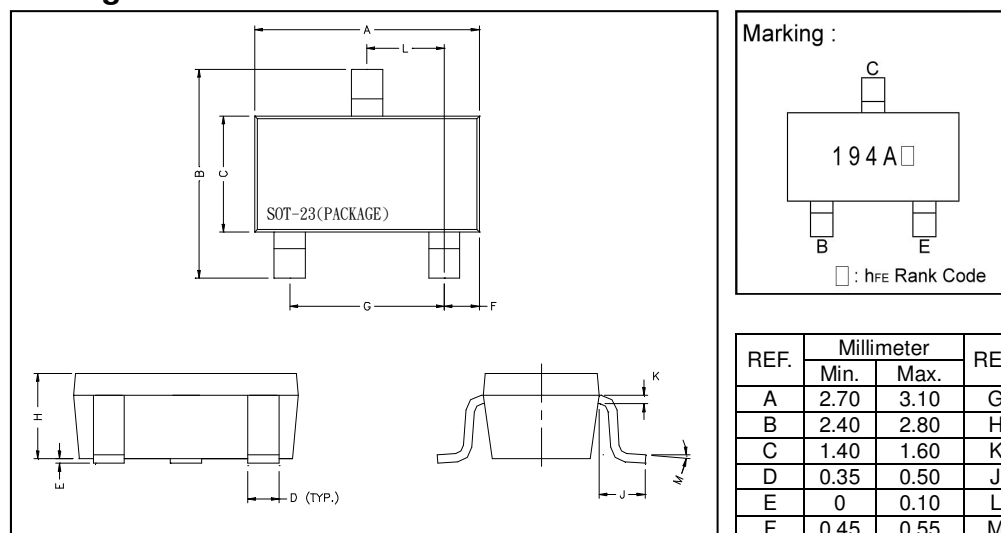
Description

The GMBT194A is designed for medium power amplifier applications.

Features

- 1 Amp continuous current
- Complementary to GMBT195A

Package Dimensions



Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T _j	+150	°C
Storage Temperature	T _{stg}	-65~+150	°C
Collector to Base Voltage	V _{CB0}	40	V
Collector to Emitter Voltage	V _{CEO}	40	V
Emitter to Base Voltage	V _{EBO}	5	V
Collector Current (DC)	I _c	1	A
Collector Current (Pulse)	I _c	2	A
Total Power Dissipation(Note1)	P _D	500	mW

Note 1. Device mounted on FR-4=1.6*1.6*0.06in

Electrical Characteristics (Ta = 25°C, unless otherwise stated)

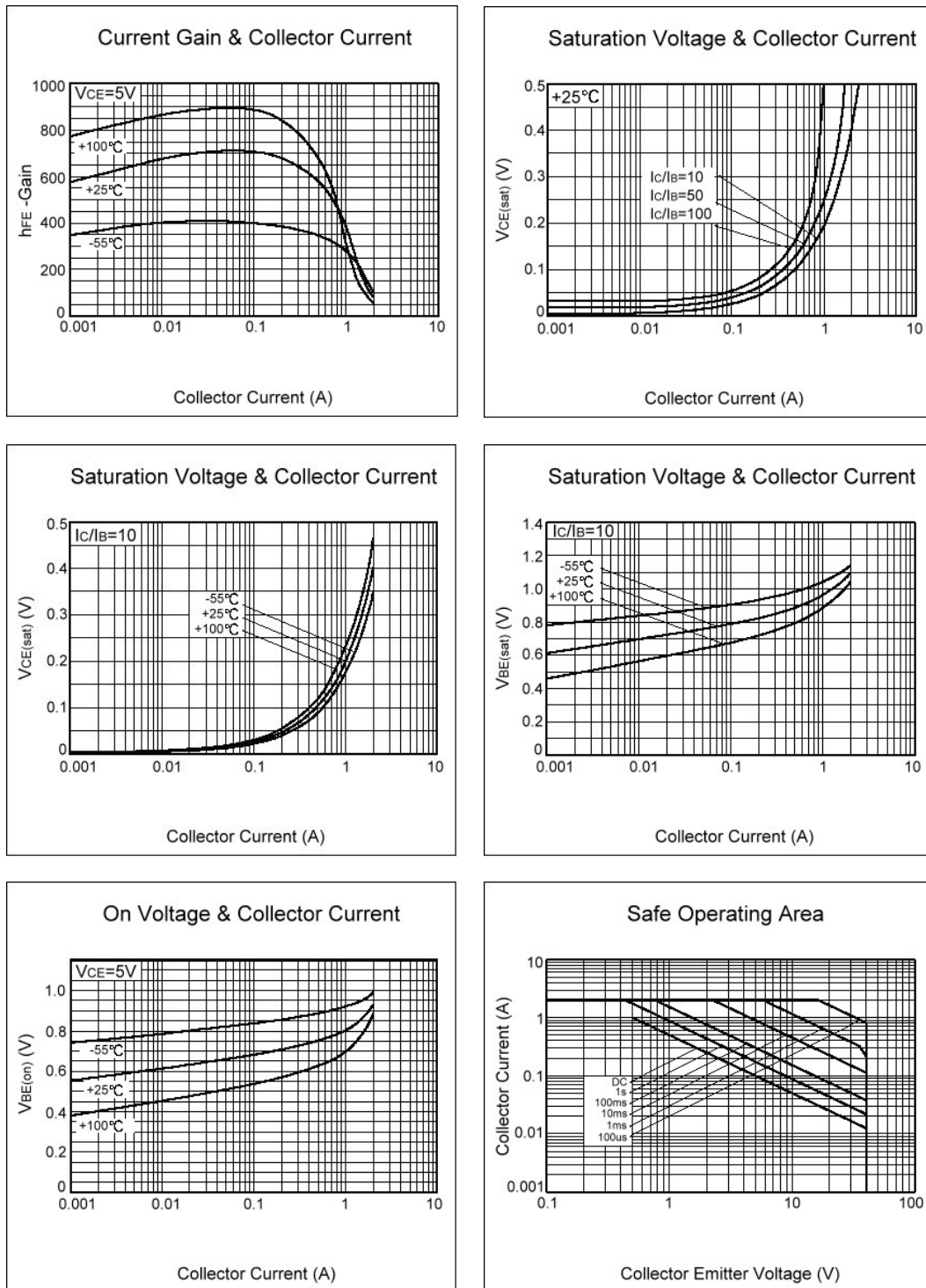
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	40	-	-	V	I _c =100uA, I _E =0
*BV _{CEO}	40	-	-	V	I _c =10mA, I _B =0
BV _{EBO}	5	-	-	V	I _E =100uA, I _c =0
I _{CB0}	-	-	100	nA	V _{CB} =30V, I _E =0
I _{CES}	-	-	100	nA	V _{CE} =30V
I _{EBO}	-	-	100	nA	V _{EB} =4V, I _c =0
*V _{CE(sat)} 1	-	-	0.3	V	I _c =500mA, I _B =50mA
*V _{CE(sat)} 2	-	-	0.5	V	I _c =1A, I _B =100mA
*V _{BE(sat)}	-	-	1.1	V	I _c =1A, I _B =100mA
*V _{BE(on)}	-	-	1.0	V	V _{CE} =5V, I _c =1A
*h _{FE} 1	300	-	-		V _{CE} =5V, I _c =1mA
*h _{FE} 2	300	-	900		V _{CE} =5V, I _c =500mA
*h _{FE} 3	200	-	-		V _{CE} =5V, I _c =1A
*h _{FE} 4	35	-	-		V _{CE} =5V, I _c =2A
f _T	150	-	-	MHz	V _{CE} =10V, I _c =50mA, f=100MHz
C _{ob}	-	-	10	pF	V _{CB} =10V, I _E =0, f=1MHz

*Measured under pulse condition. Pulse width=300μs, Duty Cycle≤2%

Classification Of hFE2

Rank	P	Q
Range	300 ~ 700	500 ~ 900

Characteristics Curve



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