

GTM CORPORATION

ISSUED DATE :2006/06/07
REVISED DATE :

GMBT194A

NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

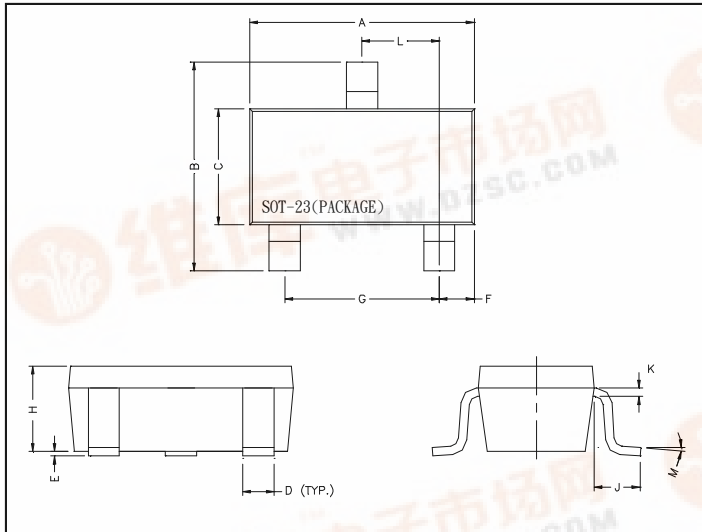
Description

The GMBT194A is designed for medium power amplifier applications.

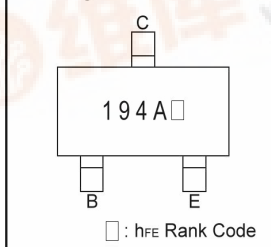
Features

- 1 Amp continuous current
- Complementary to GMBT195A

Package Dimensions



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	-65~+150	°C
Collector to Base Voltage	VCBO	40	V
Collector to Emitter Voltage	VCEO	40	V
Emitter to Base Voltage	VEBO	5	V
Collector Current (DC)	Ic	1	A
Collector Current (Pulse)	Ic	2	A
Total Power Dissipation(Note1)	Pd	500	mW

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

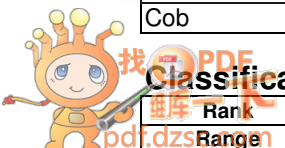
Electrical Characteristics (Ta = 25°C, unless otherwise stated)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	40	-	-	V	Ic=100uA, IE=0
*BVCEO	40	-	-	V	Ic=10mA, IB=0
BVEBO	5	-	-	V	IE=100uA, Ic=0
ICBO	-	-	100	nA	VCB=30V, IE=0
ICES	-	-	100	nA	VCE=30V
IEBO	-	-	100	nA	VEB=4V, Ic=0
*VCE(sat)1	-	-	0.3	V	Ic=500mA, IB=50mA
*VCE(sat)2	-	-	0.5	V	Ic=1A, IB=100mA
*VBE(sat)	-	-	1.1	V	Ic=1A, IB=100mA
*VBE(on)	-	-	1.0	V	VCE=5V, Ic=1A
*hFE1	300	-	-		VCE=5V, Ic=1mA
*hFE2	300	-	900		VCE=5V, Ic=500mA
*hFE3	200	-	-		VCE=5V, Ic=1A
*hFE4	35	-	-		VCE=5V, Ic=2A
fT	150	-	-	MHz	VCE=10V, Ic=50mA, f=100MHz
Cob	-	-	10	pF	VCB=10V, IE=0, f=1MHz

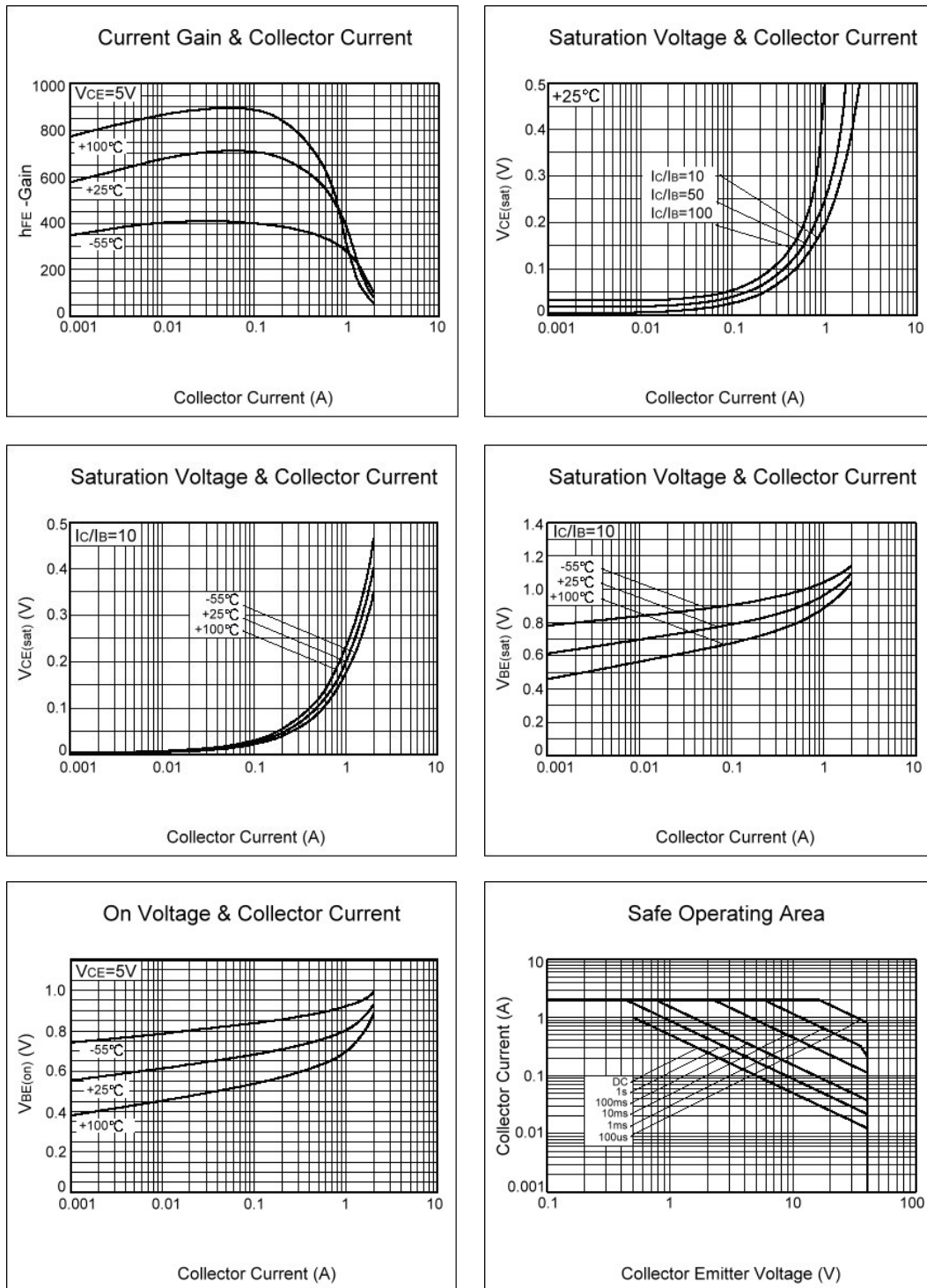
*Measured under pulse condition. Pulse width=300μs, Duty Cycle≤2%

Classification Of hFE2

Rank	P	Q
Range	300 ~ 700	500 ~ 900



Characteristics Curve



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