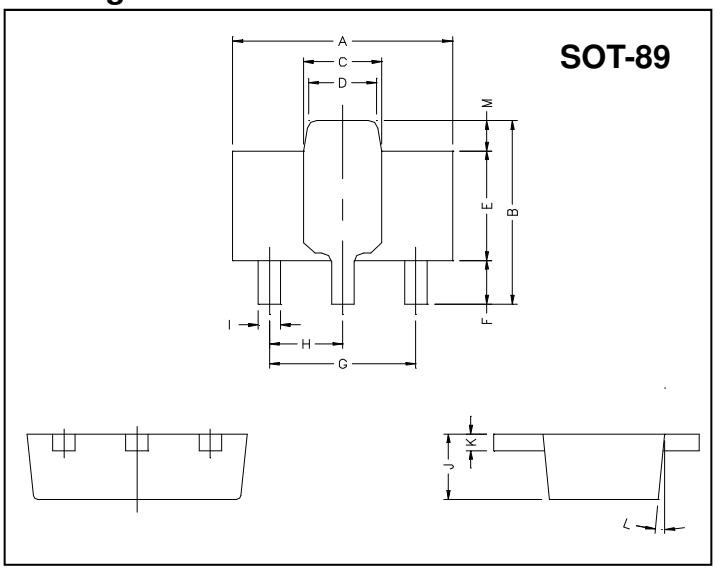
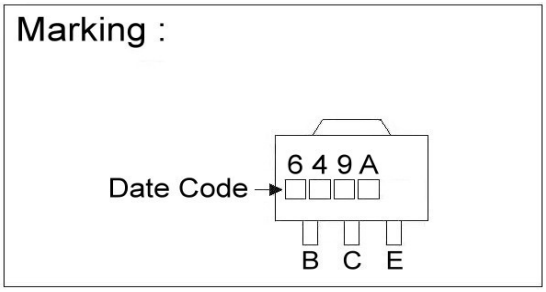
GM649A PNP EPITAXIAL PLANAR TRANSISTOR

Description

The GM469A is designed for low frequency power amplifier complementary pair with GM669A.

Package Dimensions





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00 REF.	
B	4.05	4.25	H	1.50 REF.	
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5° TYP.	
			M	0.70 REF.	

Absolute Maximum Ratings at T_A = 25℃

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃
Collector to Base Voltage	V_{CBO}	-180	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collect Current(DC)	I_C	-1.5	A
Collect Current(Pulse)	I_C	-3	A
Total Power Dissipation	P_D	1	W

Electrical Characteristics(T_A = 25℃)

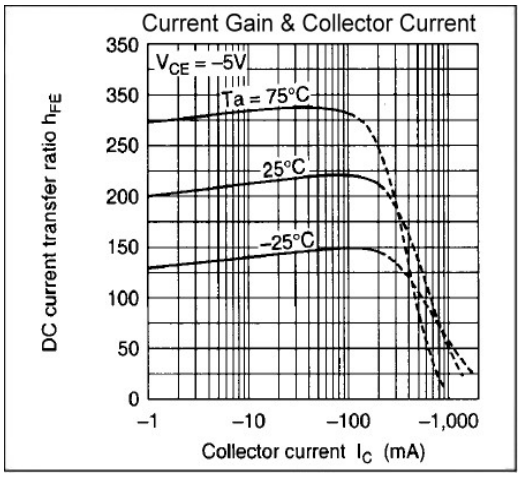
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-180	-	-	V	I_C=-1mA, I_E=0
BV_{CEO}	-160	-	-	V	I_C=-10mA, I_B=0
BV_{EBO}	-5	-	-	V	I_E=-1mA, I_C=0
I_{CBO}	-	-	-10	uA	V_{CB}=-160V, I_E=0
*V_{CE}(sat)	-	-	-1	V	I_C=-600mA, I_B=-50mA
*V_{BE}(on)	-	-	-1.5	V	V_{CE}=-5V, I_C=-150mA
*h_{FE1}	60	-	200		V_{CE}=-5V, I_C=-150mA
*h_{FE2}	30	-	-		V_{CE}=-5V, I_C=-500mA
fT	-	140	-	MHz	V_{CE}=-5V, I_C=-150mA, f=100MHz
Cob	-	27	-	pF	VCB=-10V, f=1MHz

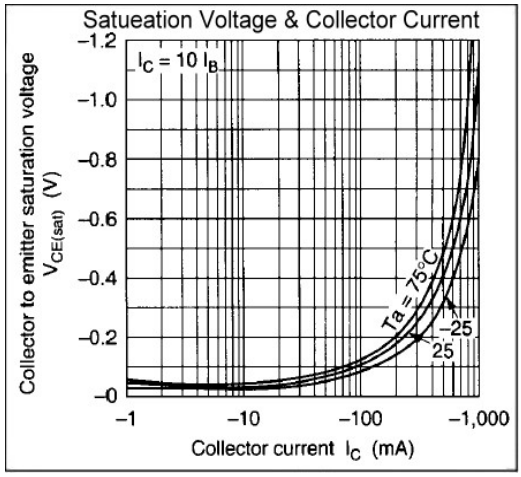
* Pulse Test: Pulse Width≦380μs, Duty Cycle≦2%

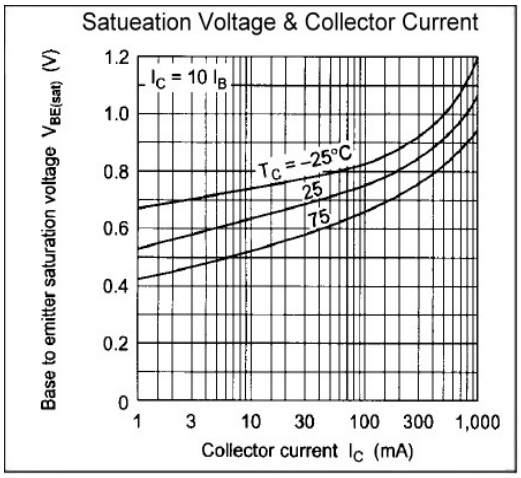
Classification Of h_{FE1}

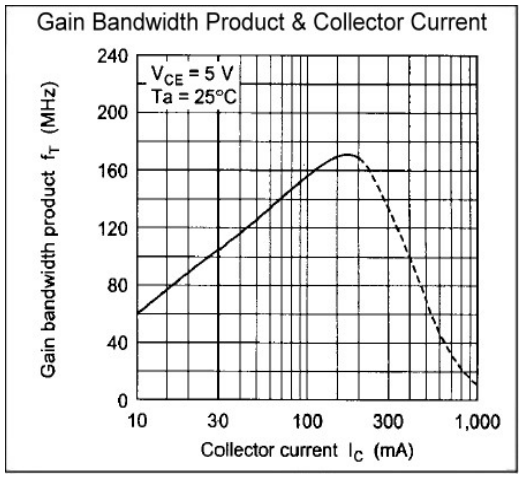
Rank	B	C
h_{FE1}	60 ~ 120	100 ~ 200

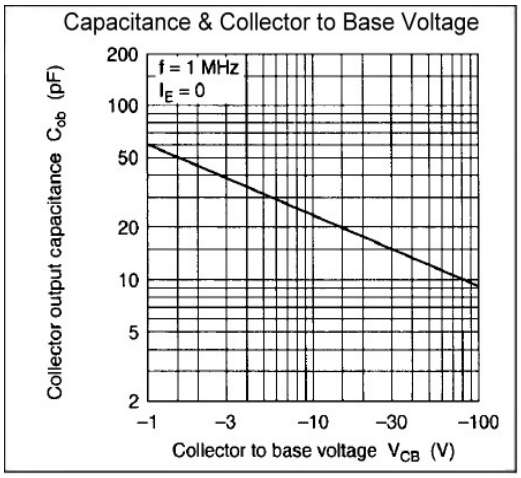
Characteristics Curve

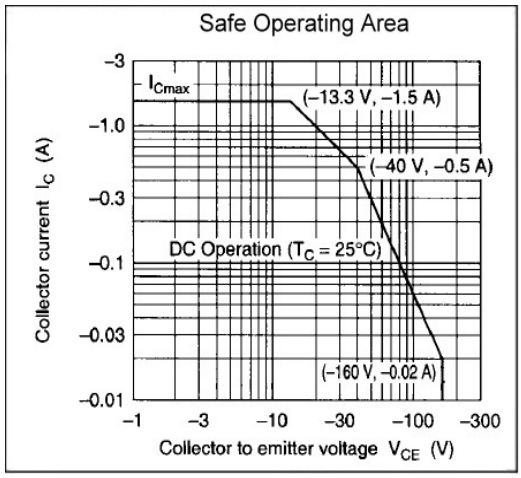












Important Notice:
- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of GTM.
- GTM reserves the right to make changes to its products without notice.
- GTM semiconductor products are not warranted to be suitable for use in life-support Applications, 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