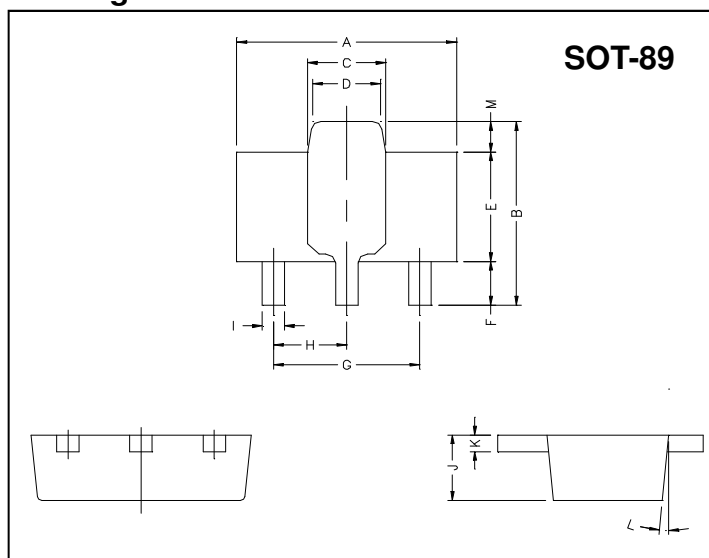


## GM669A NPN EPITAXIAL PLANAR TRANSISTOR

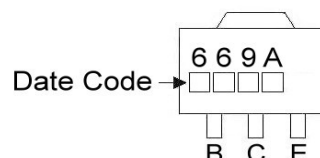
### Description

The GM669A is designed for low frequency power amplifier complementary pair with GM649A.

### Package Dimensions



### Marking :



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 TA = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ +150	°C
Collector to Base Voltage	V <sub>CB0</sub>	180	V
Collector to Emitter Voltage	V <sub>CEO</sub>	160	V
Emitter to Base Voltage	V <sub>EBO</sub>	5	V
Collect Current(DC)	I <sub>C</sub>	1.5	A
Collect Current(Pulse)	I <sub>C</sub>	3	A
Total Power Dissipation	P <sub>D</sub>	1	W

### Electrical Characteristics(TA = 25°C)

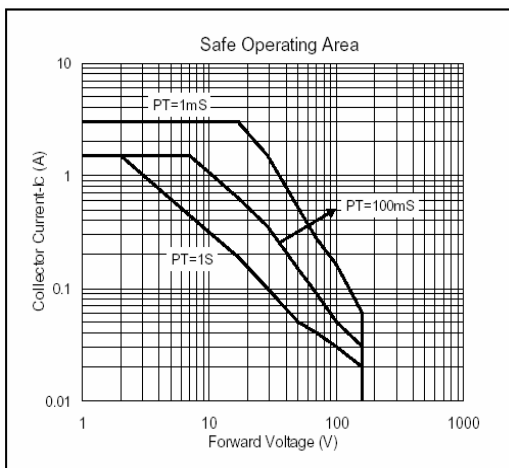
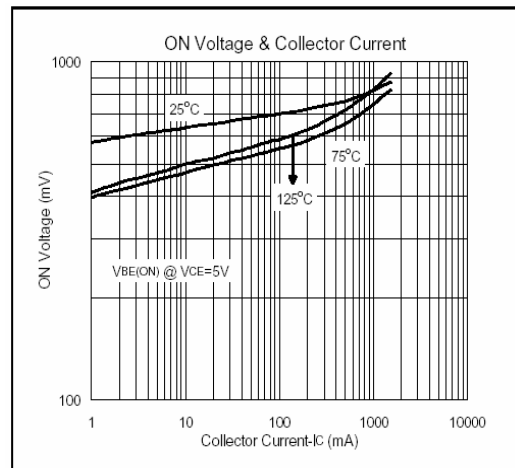
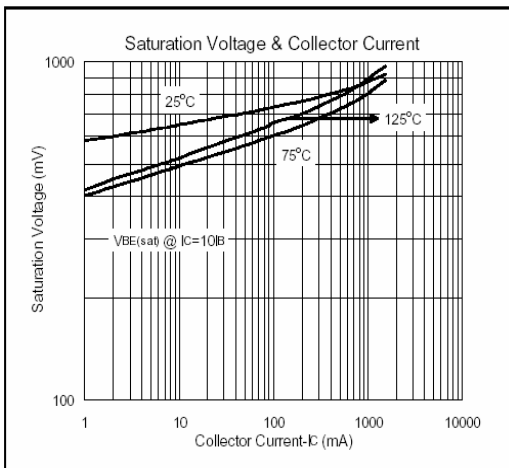
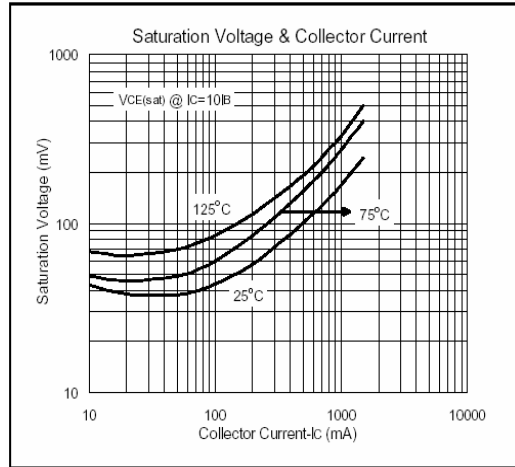
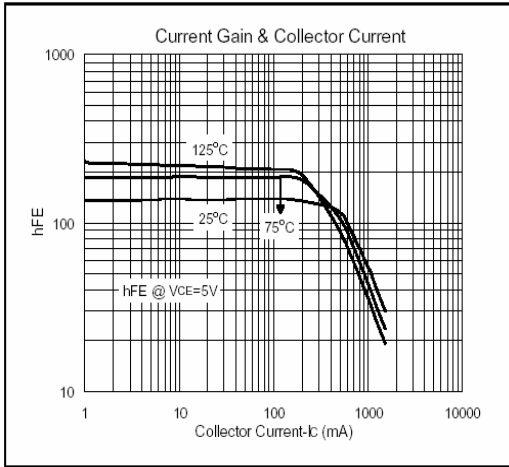
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V <sub>CB0</sub>	180	-	-	V	I <sub>C</sub> =1mA, I <sub>E</sub> =0
V <sub>CEO</sub>	160	-	-	V	I <sub>C</sub> =10mA, I <sub>B</sub> =0
V <sub>EBO</sub>	5	-	-	V	I <sub>E</sub> =1mA, I <sub>C</sub> =0
I <sub>CB0</sub>	-	-	10	uA	V <sub>CB</sub> =160V, I <sub>E</sub> =0
*V <sub>CE(sat)</sub>	-	-	1	V	I <sub>C</sub> =600mA, I <sub>B</sub> =50mA
*V <sub>BE(on)</sub>	-	-	1.5	V	V <sub>CE</sub> =5V, I <sub>C</sub> =150mA
*h <sub>FE1</sub>	60	-	200		V <sub>CE</sub> =5V, I <sub>C</sub> =150mA
*h <sub>FE2</sub>	30	-	-		V <sub>CE</sub> =5V, I <sub>C</sub> =500mA
f <sub>T</sub>	-	140	-	MHz	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA, f=100MHz
C <sub>ob</sub>	-	14	-	pF	V <sub>CB</sub> =10V, f=1MHz

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

### Classification Of h<sub>FE1</sub>

Rank	B	C
h <sub>FE1</sub>	60 ~ 120	100 ~ 200

## Characteristics Curve



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