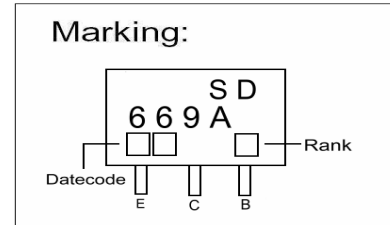
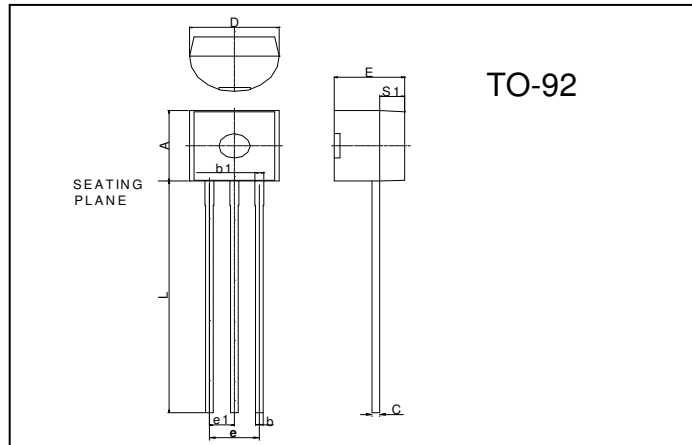


GSD669A NPN EPITAXIAL PLANAR TRANSISTOR**Description**

The GSD669A is designed for frequency power amplifier.

Features

*Low frequency power amplifier Complementary pair with GSB649A

Package Dimensions

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

Absolute Maximum Ratings($T_a = 25^\circ\text{C}$, unless otherwise specified)

Parameter		Ratings	Unit
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_{CP}	3	A
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation ($T_C=25^\circ\text{C}$)	P_D	1	W

Electrical Characteristics($T_a = 25^\circ\text{C}$, unless otherwise specified)

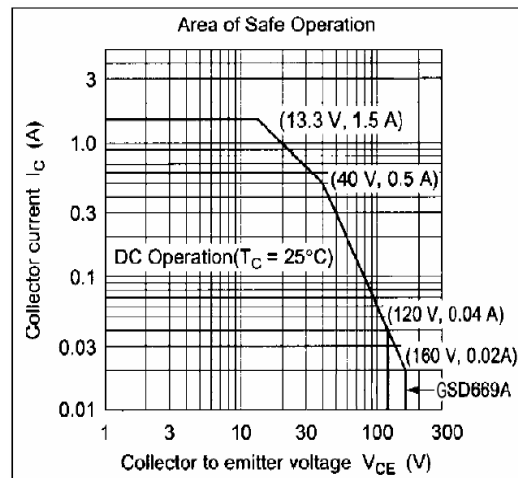
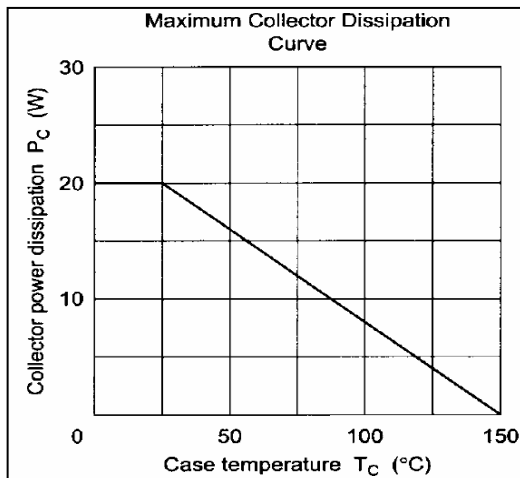
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)CBO}$	180	-	-	V	$I_C=1\text{mA}, I_E=0$
$V_{(BR)CEO}$	160	-	-	V	$I_C=10\text{mA}, R_{BE}=\infty$
$V_{(BR)EBO}$	5	-	-	V	$I_E=1\text{mA}, I_C=0$
I_{CBO}	-	-	10	μA	$V_{CB}=160\text{V}, I_E=0$
* $V_{CE(sat)}$	-	-	1	V	$I_C=600\text{mA}, I_B=50\text{mA}$
* $V_{BE(on)}$	-	-	1.5	V	$V_{CE}=5\text{V}, I_C=150\text{mA}$
* h_{FE1}	60	-	200		$V_{CE}=5\text{V}, I_C=150\text{mA}$
* h_{FE2}	30	-	-		$V_{CE}=5\text{V}, I_C=500\text{mA}$
f_T	-	140	-	MHz	$V_{CE}=5\text{V}, I_C=150\text{mA}$
C_{ob}	-	14	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

* Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

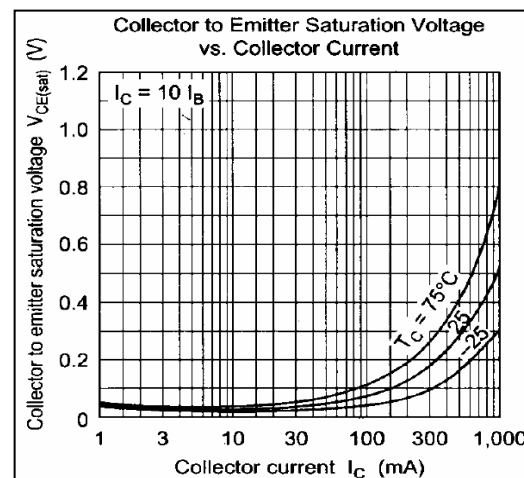
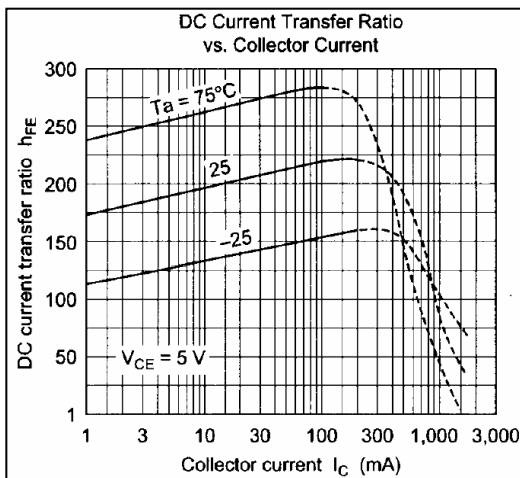
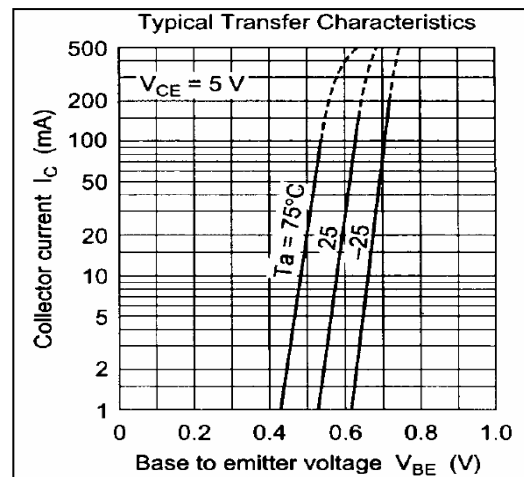
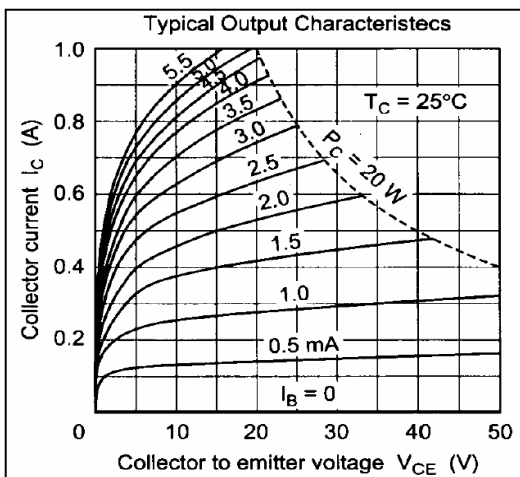
Classification Of h_{FE1}

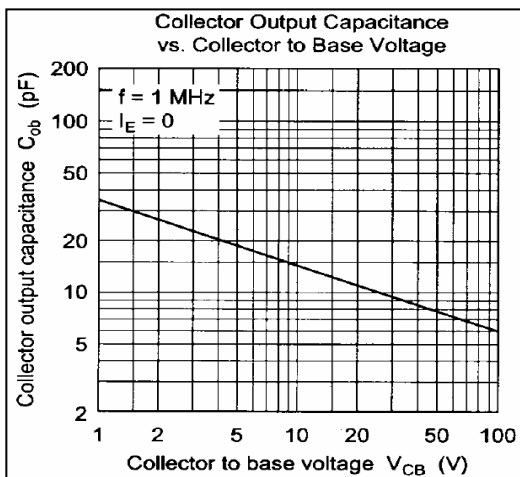
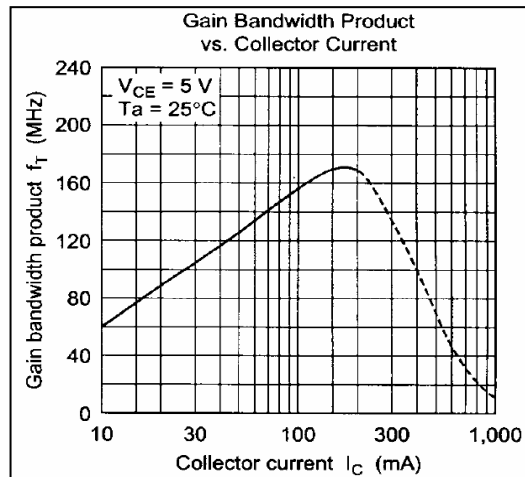
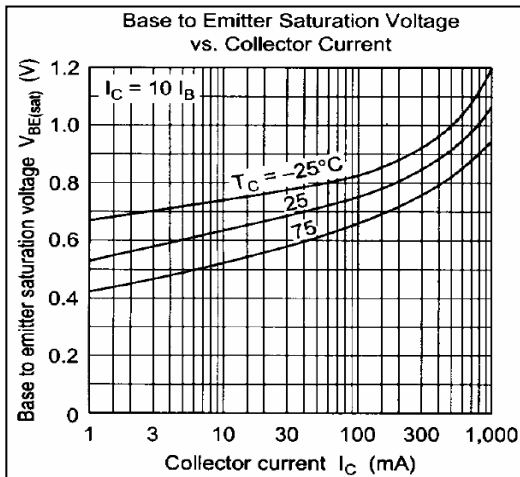
Rank	B	C
Range	60-120	100-200

Typical Parameters Performance



Characteristics Curve



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