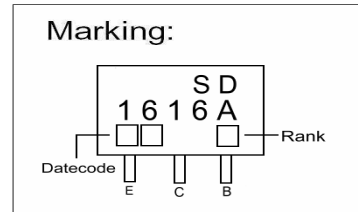
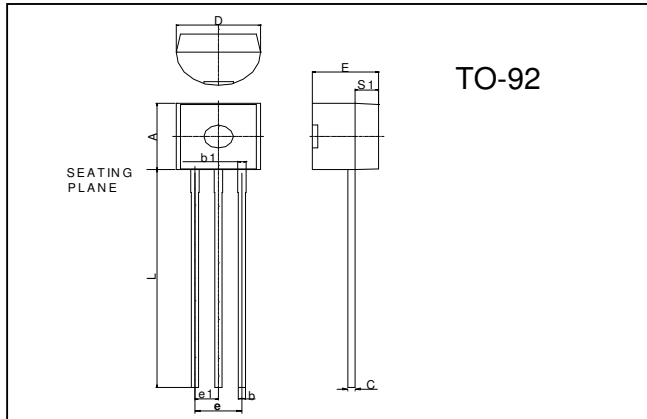


GSD1616A NPN EPITAXIAL PLANAR TRANSISTOR

Description

The GSD1616A is designed for audio frequency power amplifier and medium speed switching.

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 Ta = 25°C

Parameter		Ratings	Unit
Collector to Base Voltage	VCBO	120	V
Collector to Emitter Voltage	VCEO	60	V
Emitter to Base Voltage	VEBO	6	V
Collect Current(DC)	IC	1	A
Collect Current*(Pulse)	IC	2	A
Junction Temperature	Tj	+150	°C
Storage Temperature Range	Tstg	-55 ~ +150	°C
Total Power Dissipation	PD	750	mW

Characteristics at Ta = 25°C

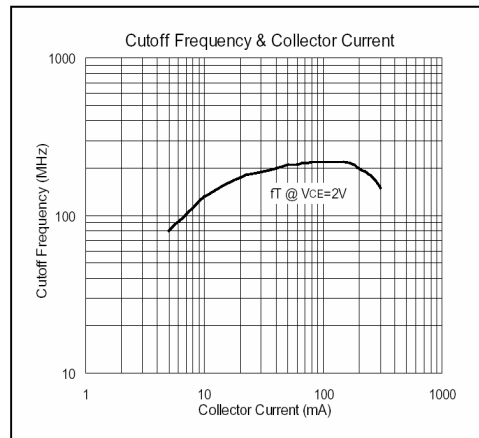
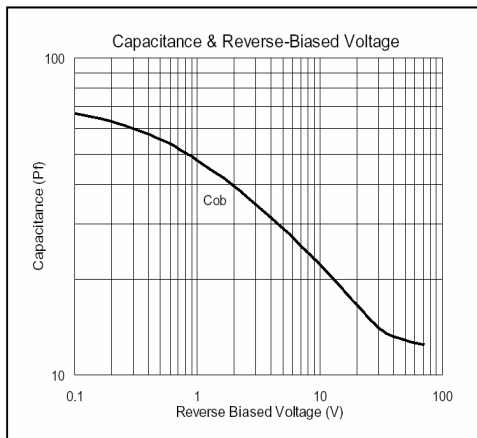
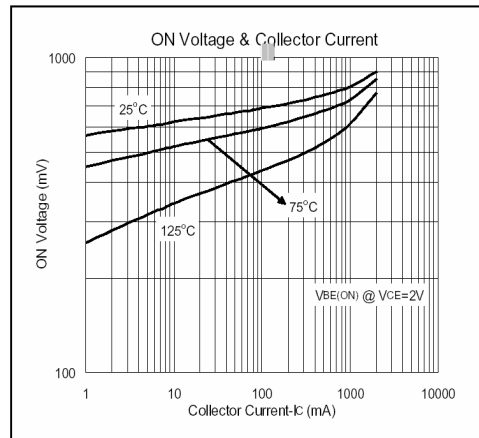
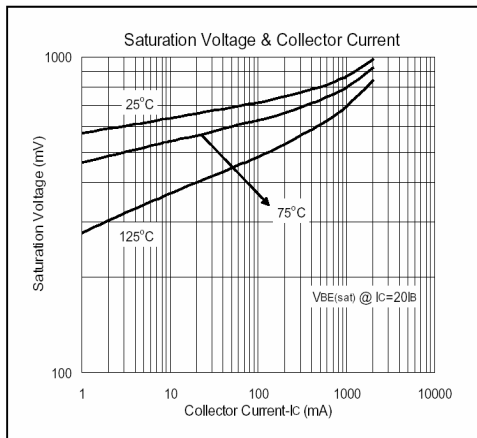
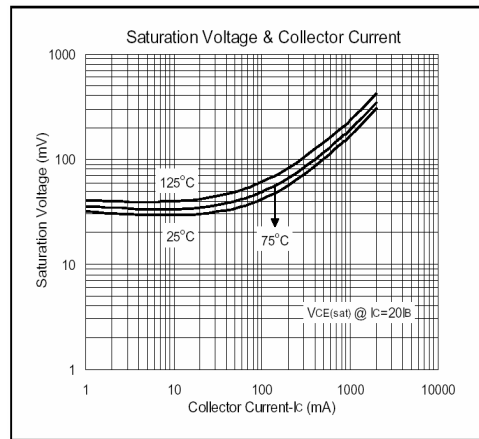
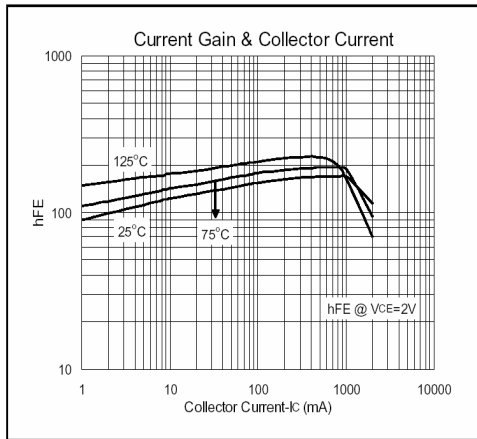
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	120	-	-	V	IC=100uA
BVCEO	60	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	100	nA	VBE=60V
IEBO	-	-	100	nA	VBE=6V
*VCE(sat)	-	150	300	mV	IC=1A, IB=50mA
*VBE(sat)	-	0.9	1.2	mV	IC=1A, IB=50mA
VBE(on)	600	640	700	mV	VCE=2V, IC=50mA
*hFE1	135	-	600		VCE=2V, IC=100mA
*hFE2	81	-	-		VCE=2V, IC=1A
fT	100	160	-	MHz	VCE=2V, IC=100mA
Cob	-	-	19	pF	VCB=10V, IE=0, f=1MHz
ton	-	0.07	-	uS	VCE=10V, IC=100mA
ts	-	0.95	-	uS	IB1=-IB2=10mA
tf	-	0.07	-	uS	VBE(off)=2~3V

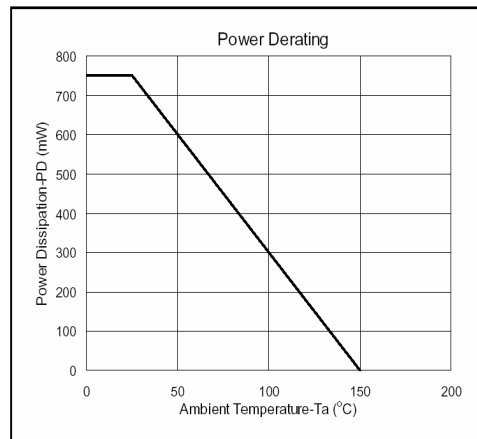
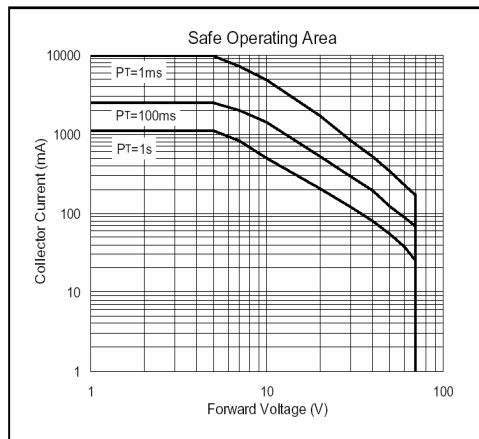
*Pulse Test: Pulse Width ≤ 380us, Duty Cycle ≤ 2%

Classification of hFE1

Rank	Y	G	L
Range	135-270	200-400	300-600

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