

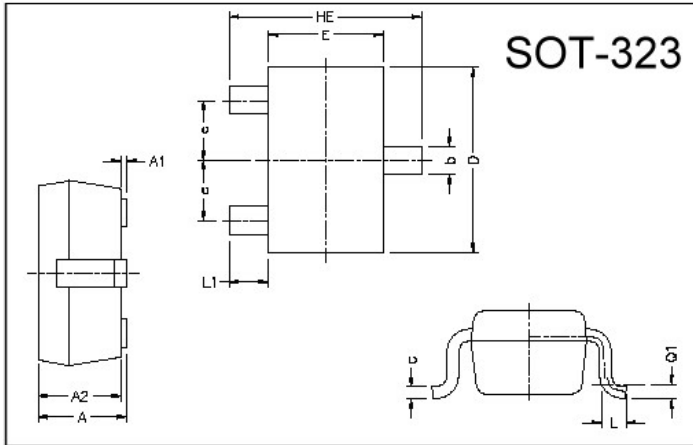
## GSD2656

### NPN EPITAXIAL TRANSISTOR

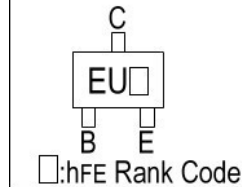
#### Description

The GSD2656 is designed for general purpose amplifier applications.

#### Package Dimensions



Marking :



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42	REF.
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C
Collector to Base Voltage	V <sub>CB0</sub>	30	V
Collector to Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter to Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	I <sub>c</sub>	1	A
Total Power Dissipation	P <sub>d</sub>	225	mW

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

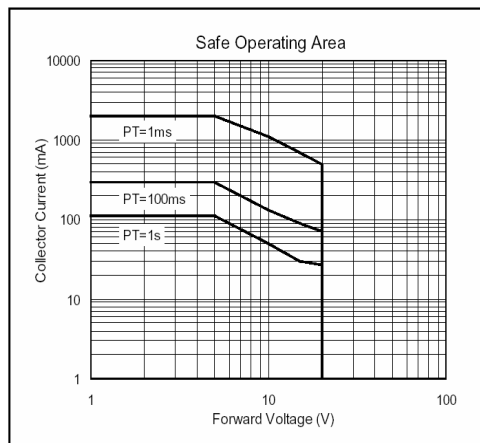
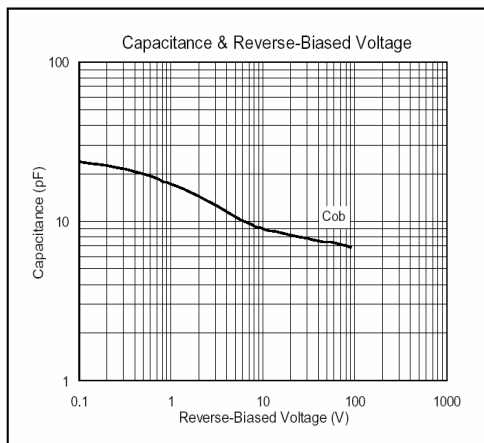
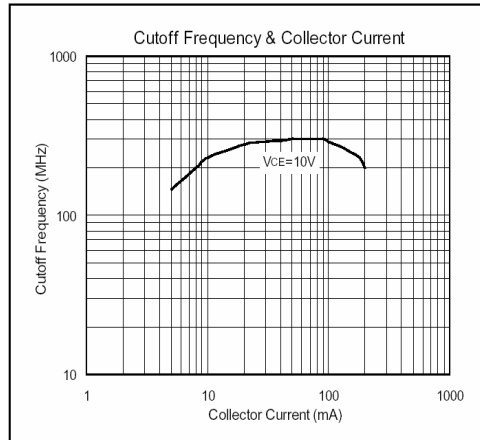
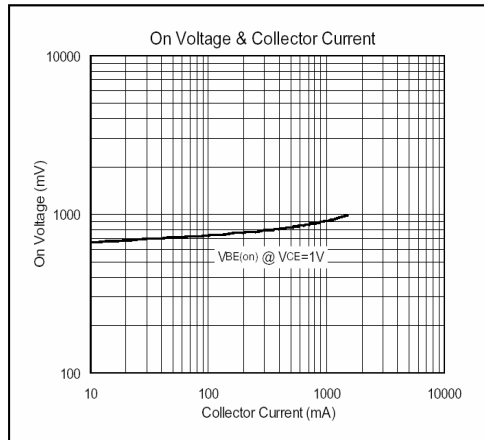
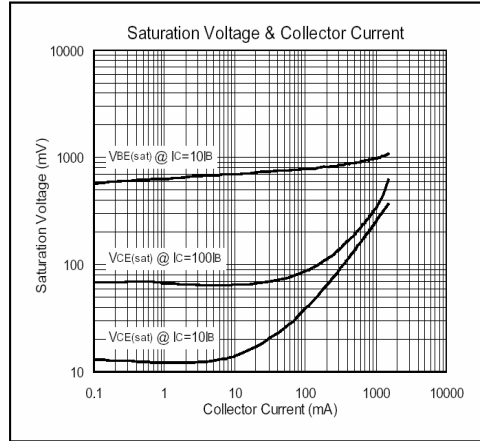
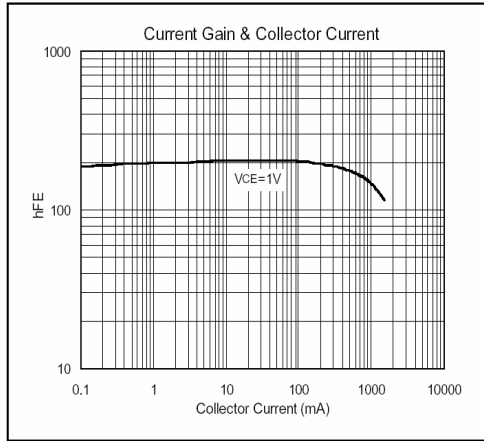
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V <sub>CB0</sub>	30	-	-	V	I <sub>c</sub> =10μA, I <sub>E</sub> =0
V <sub>CEO</sub>	30	-	-	V	I <sub>c</sub> =1mA, I <sub>B</sub> =0
V <sub>EBO</sub>	6	-	-	V	I <sub>E</sub> =10μA, I <sub>c</sub> =0
I <sub>CB0</sub>	-	-	100	nA	V <sub>CB</sub> =30V, I <sub>E</sub> =0
I <sub>EBO</sub>	-	-	100	nA	V <sub>EB</sub> =6V, I <sub>c</sub> =0
V <sub>CE(sat)</sub>	-	-	350	mV	I <sub>c</sub> =500mA, I <sub>B</sub> =25mA
*h <sub>FE</sub>	120	-	500		V <sub>CE</sub> =2V, I <sub>c</sub> =100mA
*f <sub>T</sub>	-	400	-	MHz	V <sub>CE</sub> =2V, I <sub>E</sub> =-100mA, f=100MHz
C <sub>ob</sub>	-	5	-	pF	V <sub>CB</sub> =10V, f=1MHz

\*Pulsed Test

#### Classification Of hFE

Rank	EUC	EUD	EUE
Range	120 ~ 200	160 ~ 300	250 ~ 500

## 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