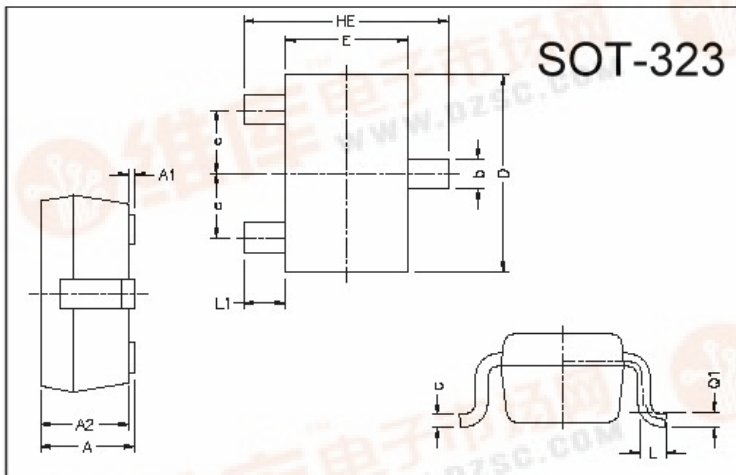


GTM**CORPORATION**ISSUED DATE :2005/02/18
REVISED DATE :**GSC4081****NPN EPITAXIAL PLANAR TRANSISTOR****Description**

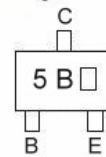
The GSC4081 is designed for use in driver stage of AF amplifier and general purpose amplification.

Features

- Low Cob. Cob=2.0 pF (Typ.)
- Complements the GSA1576A

Package Dimensions

Marking :



□:hFE Rank Code

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	Tj	+150	°C
Storage Temperature	Tstg	-55~+150	°C
Collector to Base Voltage	VCBO	60	V
Collector to Emitter Voltage	VCEO	50	V
Emitter to Base Voltage	VEBO	7	V
Collector Current	IC	150	mA
Total Power Dissipation	PD	225	mW

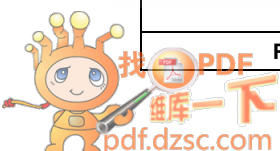
Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=50uA
BVCEO	50	-	-	V	IC=1mA
BVEBO	7	-	-	V	IE=50uA
ICBO	-	-	100	nA	VCB=60V
IEBO	-	-	100	nA	VEB=7V
VCE(sat)	-	-	400	mV	IC=50mA, IB=5mA
hFE	120	-	560		VCE=6V, IC=1mA
fT	-	180	-	MHz	VCE=12V, IC=2mA, f=100MHz
Cob	-	2	3.5	pF	VCB=12V, f=1MHz, IE=0

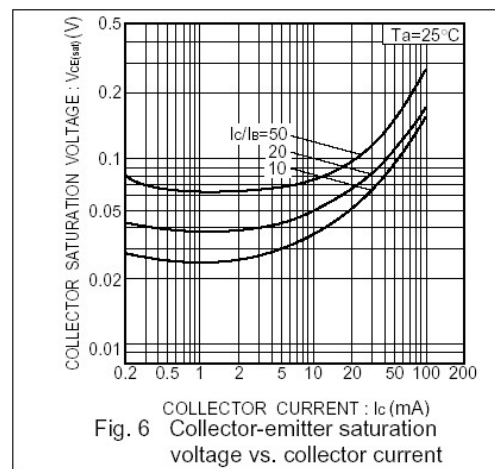
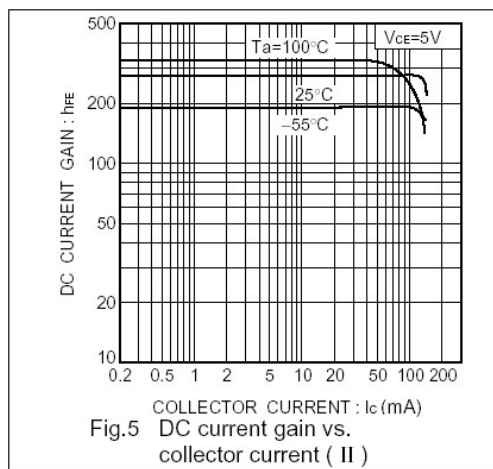
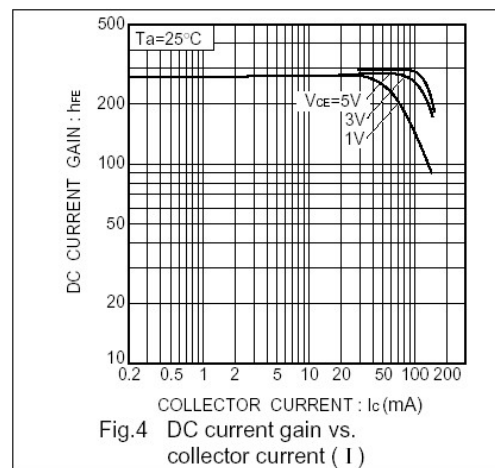
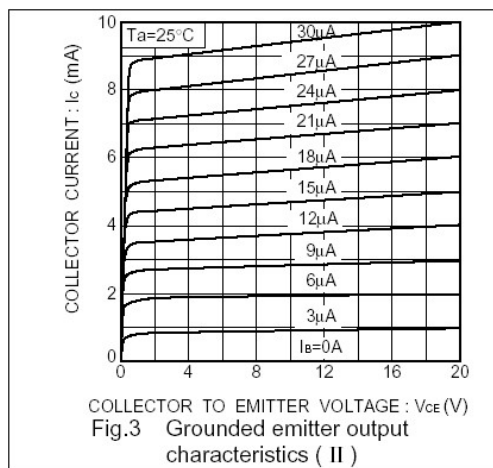
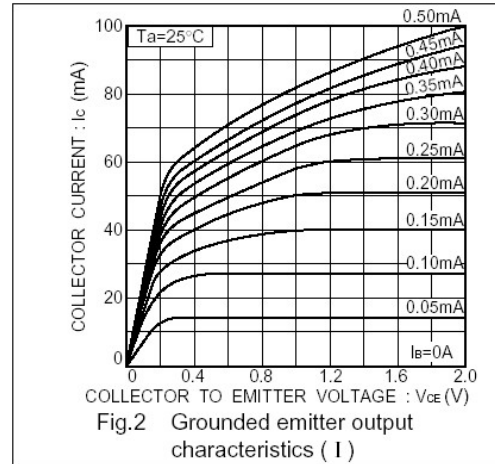
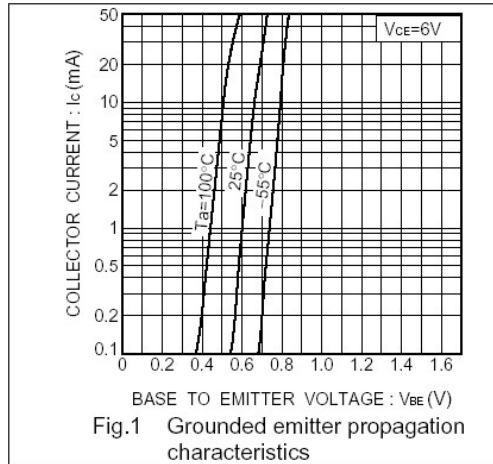
* Pulse Test: Pulse Width ≤ 380us, Duty Cycle ≤ 2%

Classification Of hFE

Rank	5BQ	5BR	5BS
Range	120 - 270	180 - 390	270 - 560



Characteristics Curve



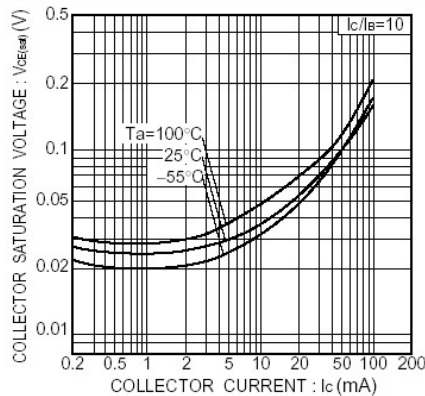


Fig.7 Collector-emitter saturation voltage vs. collector current (I)

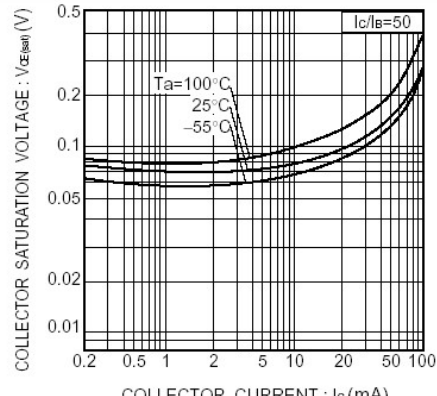


Fig.8 Collector-emitter saturation voltage vs. collector current (II)

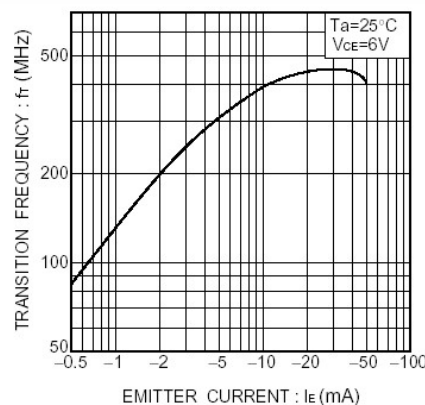


Fig.9 Gain bandwidth product vs. emitter current

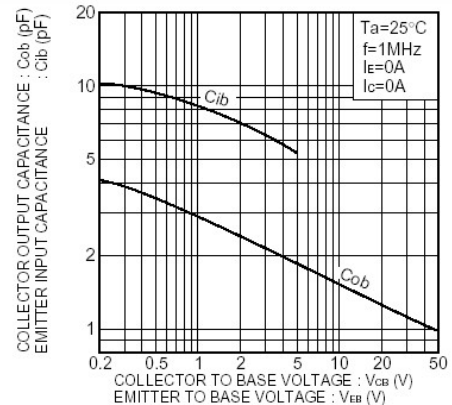


Fig.10 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

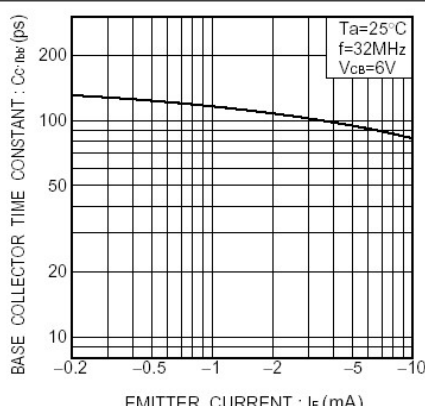


Fig.11 Base-collector time constant vs. emitter current

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