GSB1386 PNP EPITAXIAL SILICON TRANSISTOR

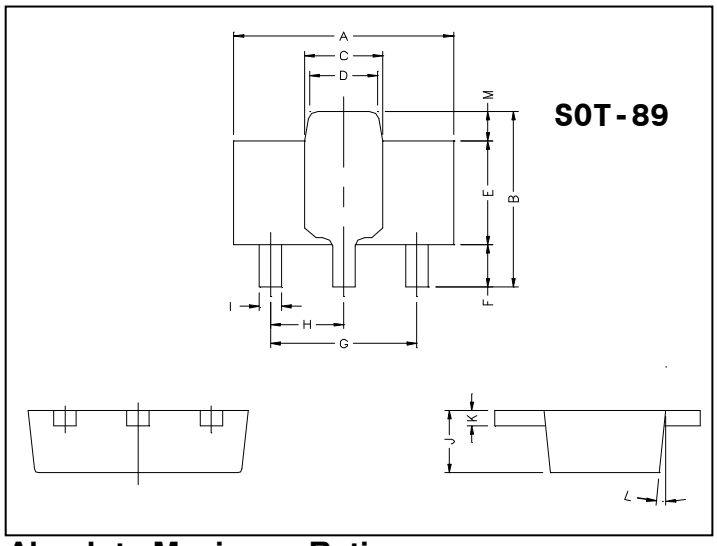
Description

The GSB1386 is a epitaxial planar type PNP silicon transistor .

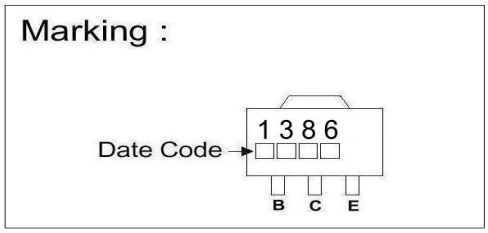
Features

*Low $V_{CE(sat)}$. $V_{CE(sat)}$ = -0.35V(Typ.) (I_C/I_B = -4A / -0.1A).
*Excellent DC current gain characteristics.
*Complements the GSD2098/GSD2118/GSD2097.

Package Dimensions



S0T-89



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 (Ta = 25℃,unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	℃
Storage Temperature	Tstg	-55 ~ +150	℃
Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current(DC)	I_C	-5	A
Collector Current(PULSE) (note1)		-10	A
Collector Power Dissipation	P_D	0.5	W
Collector Power Dissipation (note2)		2	W

* 1. Single pulse, PW=100ms.
* 2 .When mounted on a 40*40*0.7 mm ceramic board.

Electrical Characteristics (Ta = 25℃,unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-30	-	-	V	I_C=-50uA
BV_{CEO}	-20	-	-	V	I_C=-1mA
BV_{EBO}	-6	-	-	V	I_E=-50uA
I_{CBO}	-	-	-0.5	uA	V_{CB}=-20V
I_{EBO}	-	-	-0.5	uA	V_{EB}=-5V
$V_{CE(sat)}$	-	-	-1	V	I_C=-4A, I_B=-0.1A
hFE	82	-	390		V_{CE}=-2V, I_C=-0.5A
fT	-	120	-	MHz	V_{CE}=-6V, I_E=-50mA, f=30MHz
Cob	-	60	-	pF	V_{CB}=-20V, I_E=0A, f=1MHz

Note: Measured using pulse current.

Classification Of hFE

Rank	P	Q	R
RANGE	82 - 180	120 - 270	180 - 390

Characteristics Curve

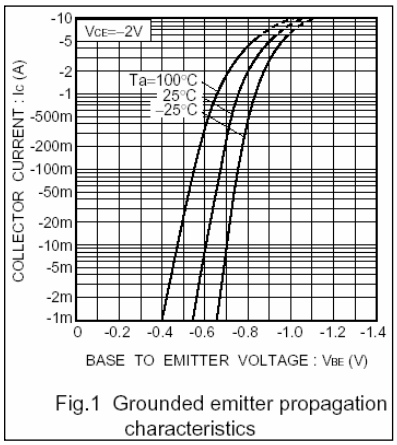


Fig.1 Grounded emitter propagation characteristics

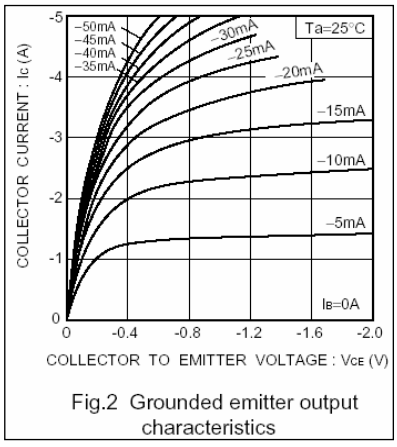


Fig.2 Grounded emitter output characteristics

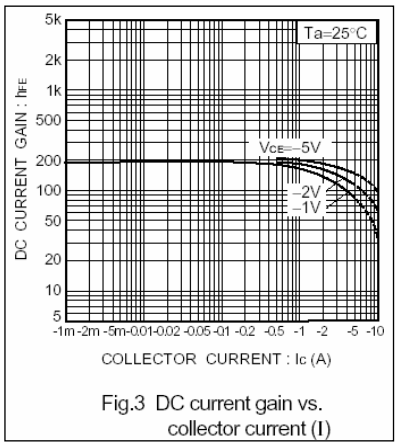


Fig.3 DC current gain vs. collector current (I)

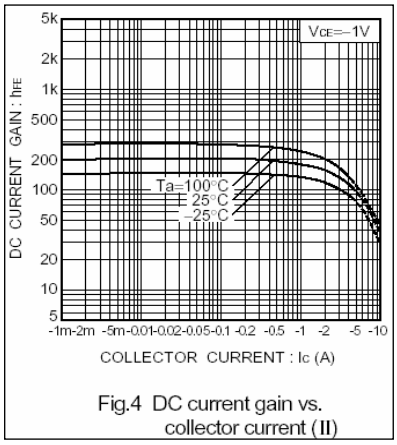


Fig.4 DC current gain vs. collector current (II)

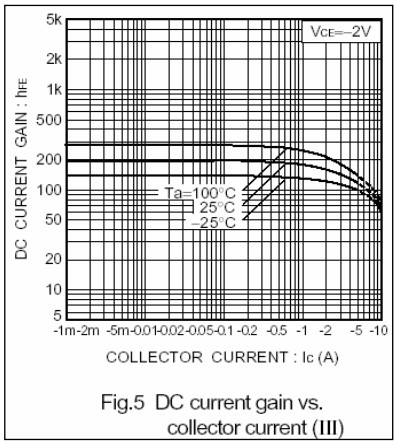


Fig.5 DC current gain vs. collector current (III)

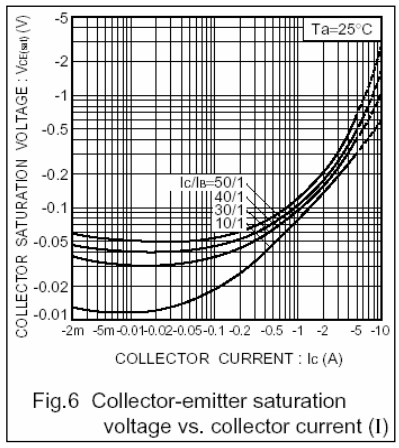


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

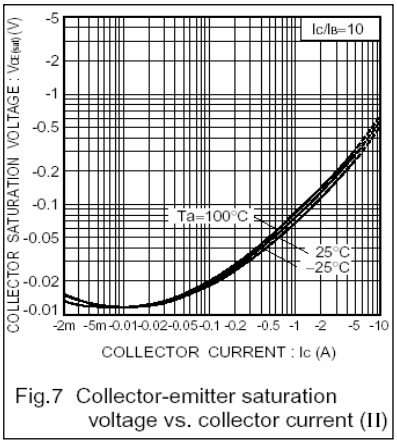


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

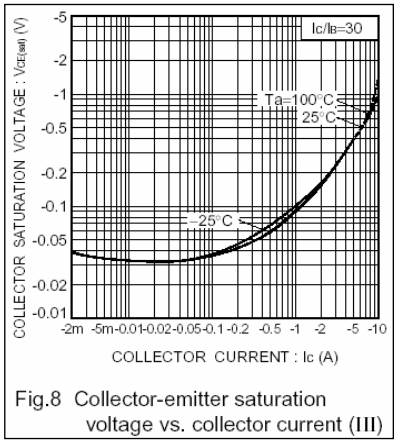


Fig.8 Collector-emitter saturation voltage vs. collector current (III)

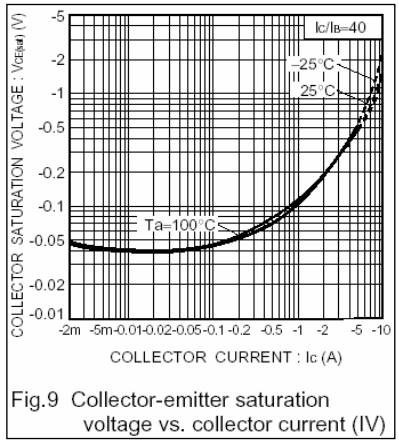


Fig.9 Collector-emitter saturation voltage vs. collector current (IV)

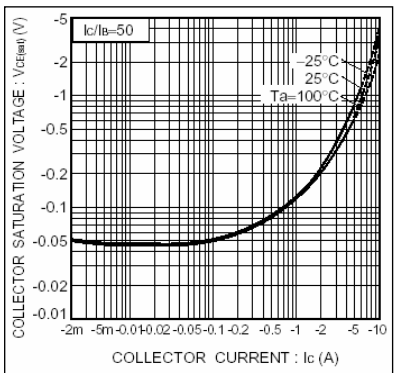


Fig.10 Collector-emitter saturation voltage vs. collector current (V)

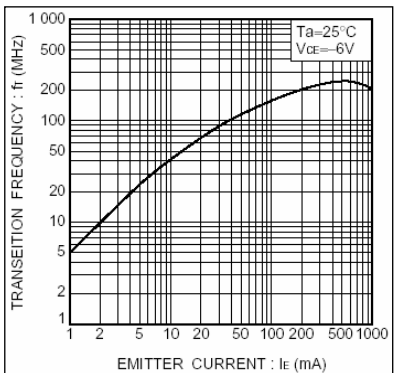


Fig.11 Gain bandwidth product vs. emitter current

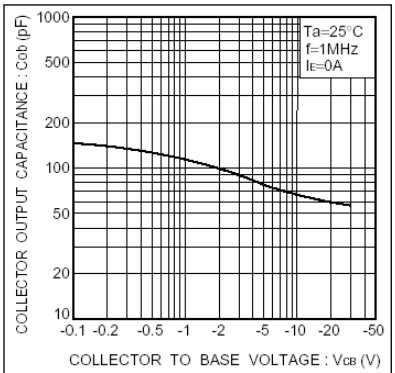


Fig.12 Collector output capacitance vs. collector-base voltage

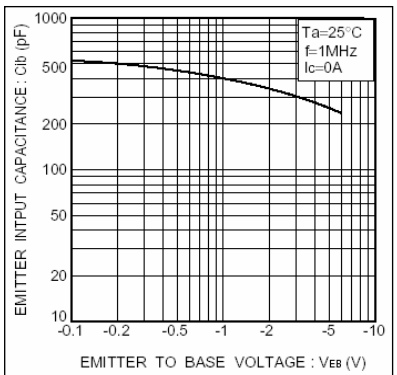


Fig.13 Emitter input capacitance vs. emitter-base voltage

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