GM1386

PNP EPITAXIAL PLANAR TRANSISTOR

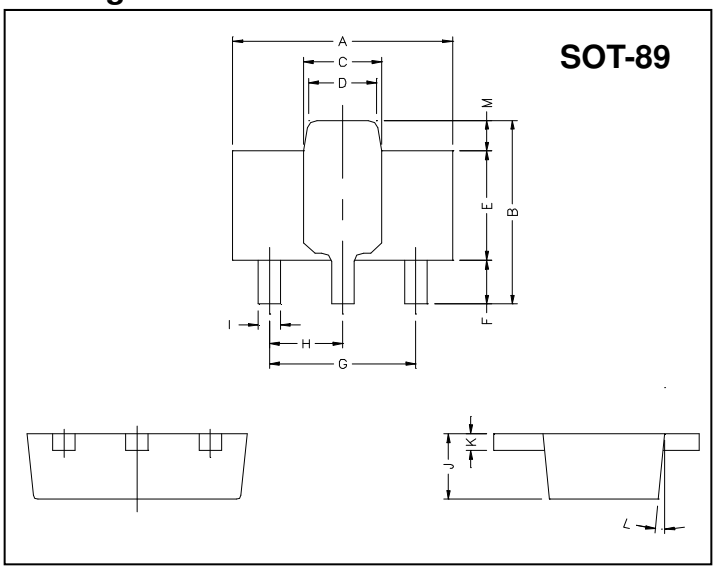
Description

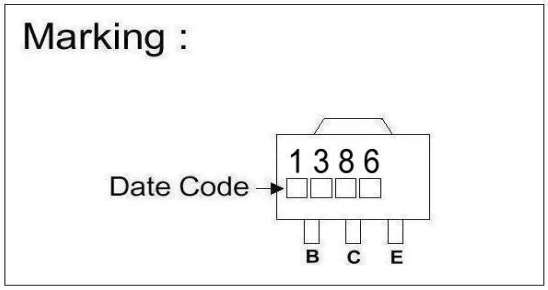
The GM1386 is an epitaxial planar type PNP silicon transistor.

Features

- Low collector saturation voltage : $V_{CE\ (sat)}$= -0.35V(Typ.) @ I_C/I_B=-4A/-0.1A
- Excellent DC current gain characteristics.

Package Dimensions





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 at Ta = 25℃

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	I_C	-5	A
Collector Current (Pulse)*[1]	I_C	-10	A
Total Power Dissipation	P_D	0.5 (2.0*[2])	W

* 1. Single pulse, PW=10ms.
* 2. When mounted on a 40*40*0.7 mm ceramic board.

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

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	-30	-	-	V	I_C=-50uA , I_E=0
BV_{CEO}	-20	-	-	V	I_C=-1mA, I_B=0
BV_{EBO}	-6	-	-	V	I_E=-50uA ,I_C=0
I_{CBO}	-	-	-0.5	uA	V_{CB}=-20V, I_E=0
I_{EBO}	-	-	-0.5	uA	V_{EB}=-5V, I_C=0
*$V_{CE(sat)}$	-	-	-1.0	V	I_C=-4A, I_B=-100mA
*h_{FE}	82	-	390		V_{CE}=-2V, I_C=-500mA
fT	-	120	-	MHz	V_{CE}=-6V, I_E=50mA, f=30MHz
Cob	-	60	-	pF	V_{CB}=-20V, I_E=0, f=1MHz

* Pulse Test: Pulse Width≦380μs, Duty Cycle≦2%

Classification Of h_{FE}

Rank	P	Q	R
Range	82 ~ 180	120 ~ 270	180 ~ 390

Characteristics Curve

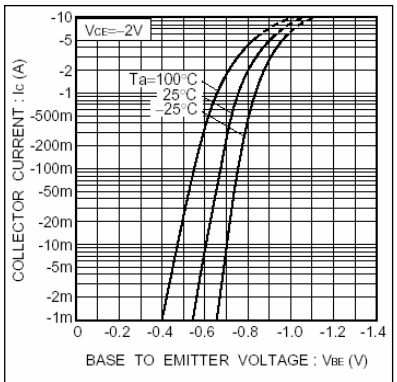


Fig.1 Grounded emitter propagation characteristics

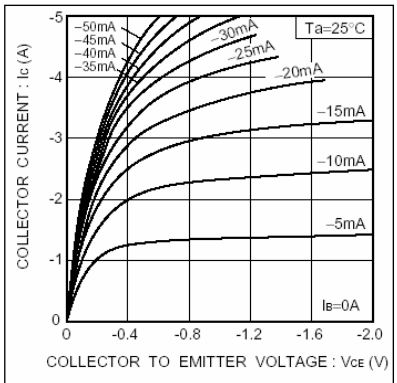


Fig.2 Grounded emitter output characteristics

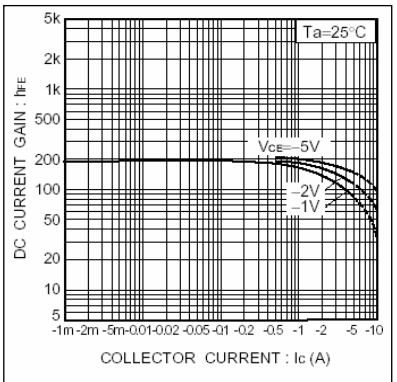


Fig.3 DC current gain vs. collector current (I)

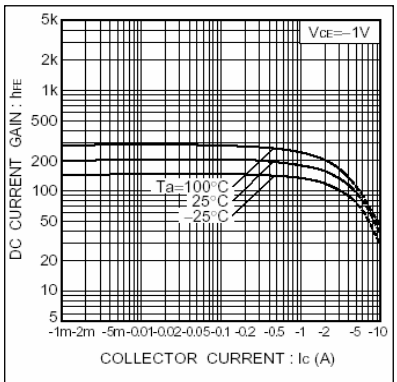


Fig.4 DC current gain vs. collector current (II)

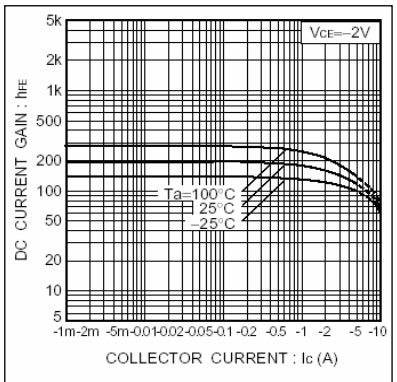


Fig.5 DC current gain vs. collector current (III)

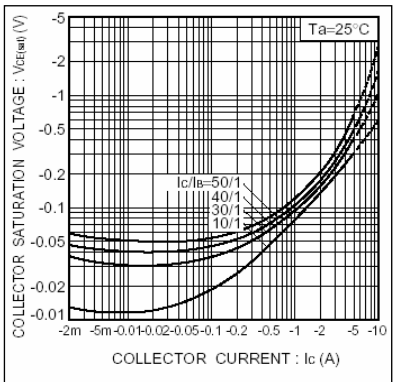


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

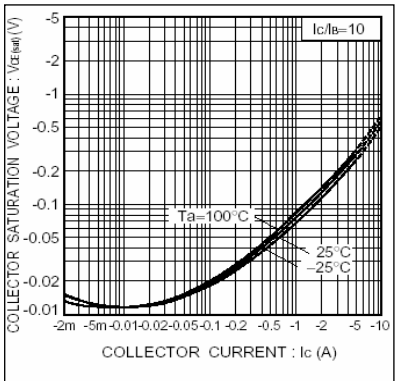


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

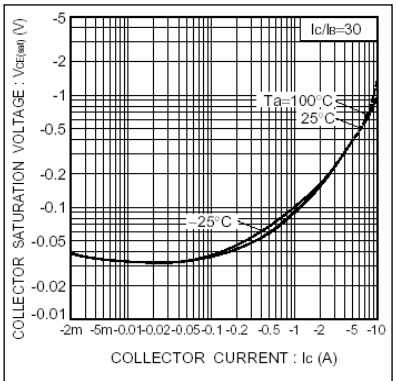


Fig.8 Collector-emitter saturation voltage vs. collector current (III)

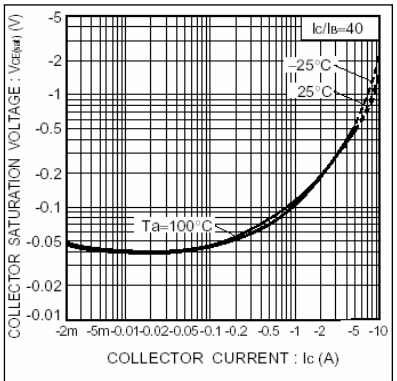


Fig.9 Collector-emitter saturation voltage vs. collector current (IV)

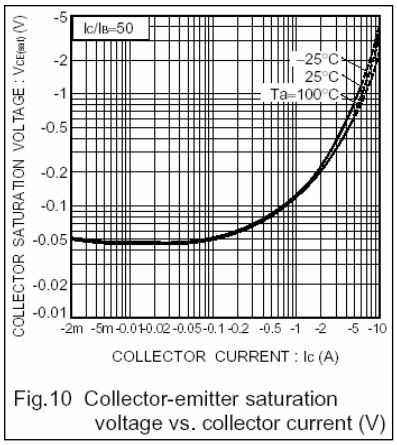


Fig.10 Collector-emitter saturation voltage vs. collector current (V)

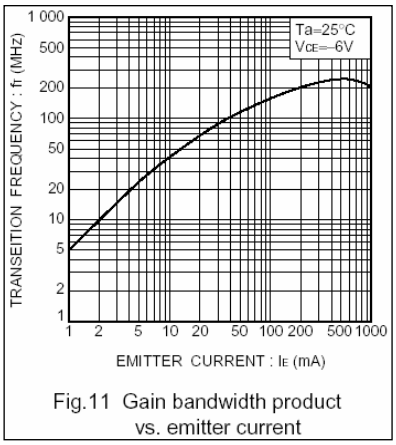


Fig.11 Gain bandwidth product vs. emitter current

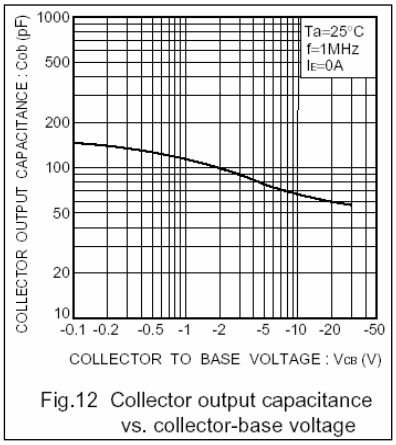


Fig.12 Collector output capacitance vs. collector-base voltage

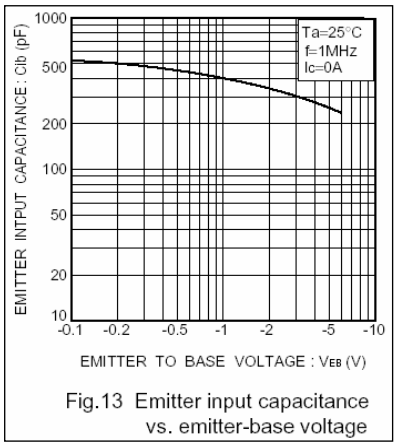


Fig.13 Emitter input capacitance vs. emitter-base voltage

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