

## GSB1132

PNP EPITAXIAL SILICON TRANSISTOR

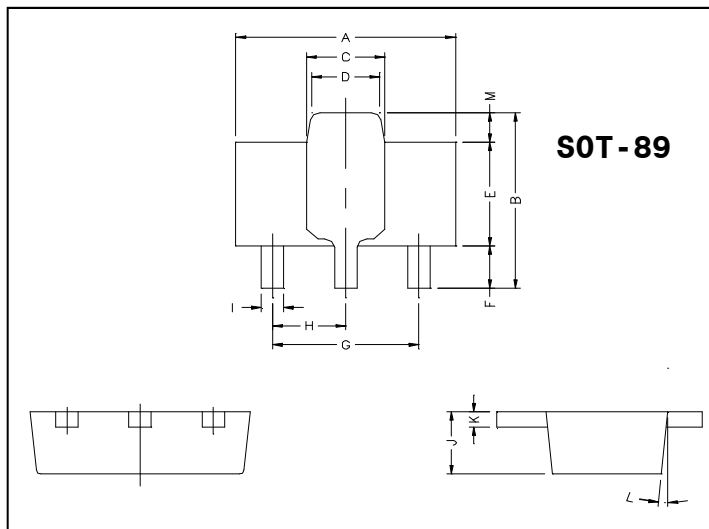
### Description

The GSB1132 is a epitaxial planar type PNP silicon transistor .

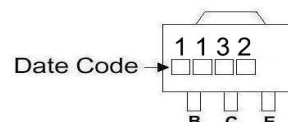
### Features

Low  $V_{CE(sat)}$ .  $V_{CE(sat)} = -0.2V(Typ.)$  ( $I_C/I_B = -500mA / -50 mA$ )

### Package Dimensions



### Marking :



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°C, unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55 ~ +150	°C
Collector to Base Voltage	Vcbo	-40	V
Collector to Emitter Voltage	Vceo	-32	V
Emitter to Base Voltage	Vebo	-5	V
Collector Current(DC)	Ic	-1	A
Collector Current(PULSE) (note1)	Ic	-2	A
Collector Power Dissipation	Pd	0.5	W
Collector Power Dissipation (note2)	Pd	2	W

Note 1: Single pulse, PW=100ms

Note 2: When mounted on a 40\*40\*0.7 mm ceramic board.

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

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVcbo	-40	-	-	V	IC=-50uA
BVceo	-32	-	-	V	IC=-1mA
BVebo	-5	-	-	V	IE=-50uA
Icbo	-	-	-0.5	uA	VCB=-20V
IEBO	-	-	-0.5	uA	VEB=-4V
VCE(sat)	-	-0.2	-0.5	V	IC=-500mA, IB=-50mA(note)
hFE	82	-	390		VCE=-3V, IC=-100mA
fT	-	150	-	MHz	VCE=-5V, IE=-50mA, f=30MHz
Cob	-	20	30	pF	VCE=-10V, IE=0A, f=1MHz

Note: Measured using pulse current.

### Classification Of hFE

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

## Characteristics Curve

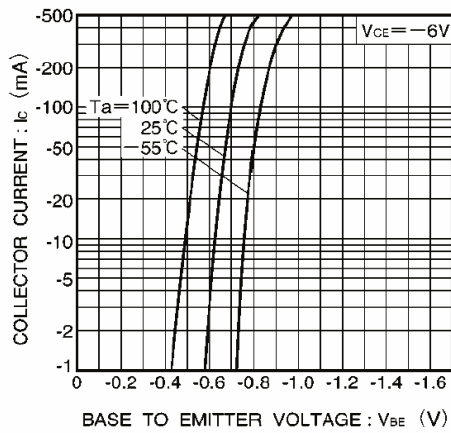


Fig.1 Grounded emitter propagation characteristics

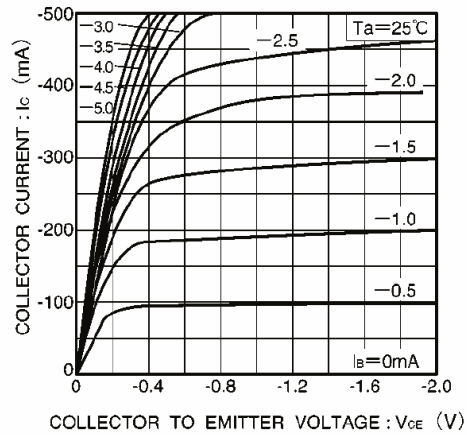


Fig.2 Grounded emitter output characteristics

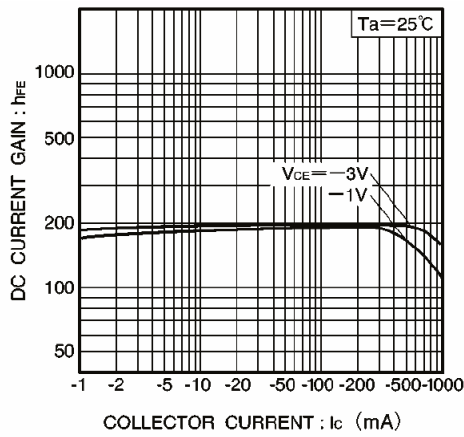


Fig.3 DC current gain vs. collector current ( I )

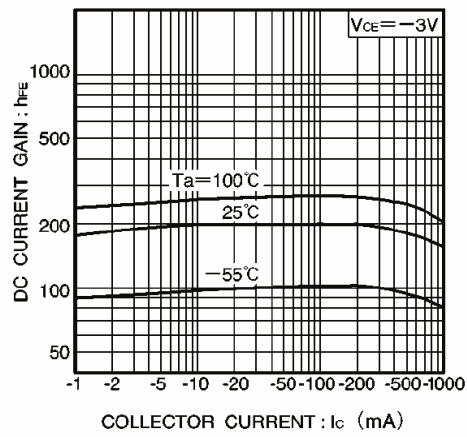


Fig.4 DC current gain vs. collector current ( II )

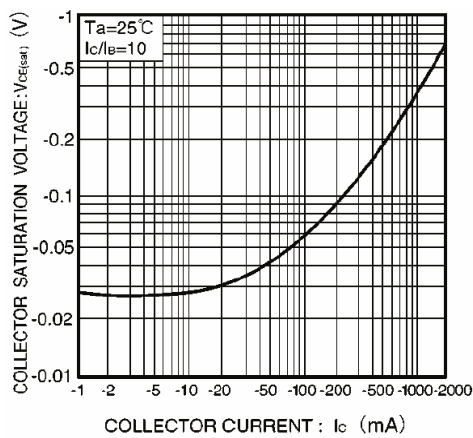


Fig.5 Collector-emitter saturation voltage vs. collector current

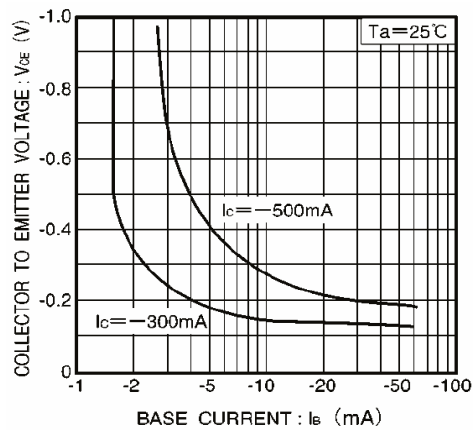
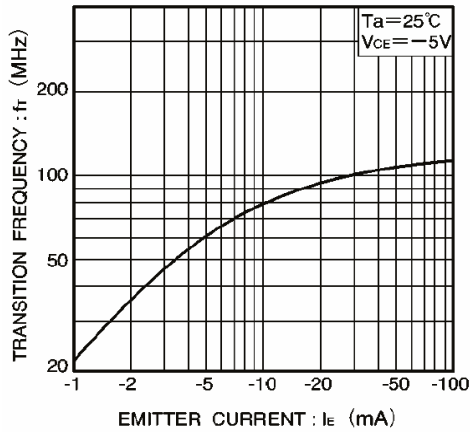
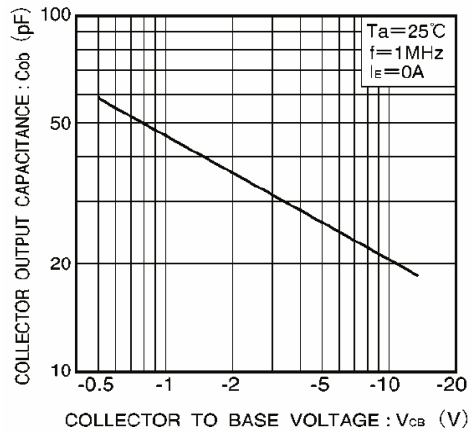


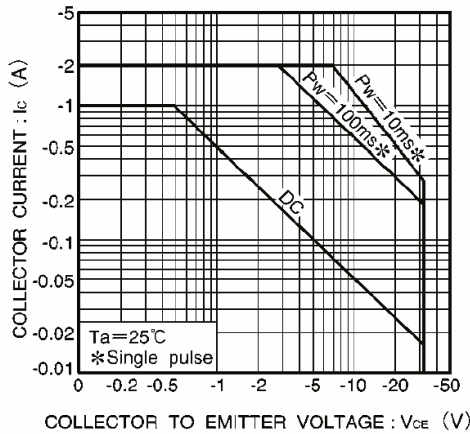
Fig.6 Collector-emitter saturation voltage vs. base current



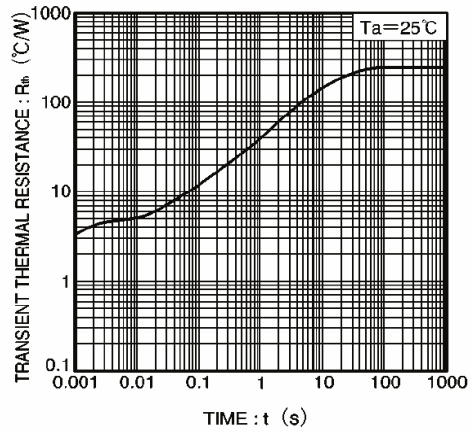
**Fig.7** Gain bandwidth product vs. emitter current



**Fig.8** Collector output capacitance vs. collector-base voltage



**Fig.9** Safe operation area



**Fig.10** Transient thermal resistance

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**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