Shandong Yiguang Electronic Joint stock Co., Ltd

SEMICONDUCTOR
TECHNICAL DATA

2SB1197K

PNP EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY TRANSISTOR

* Feature:

(1) Low Vce(sat)

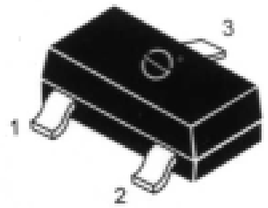
Vce≤-0.5V

(Ic/Ib= -0.5A/-50mA)

(2) Ic= -0.8A

(3) Complements the 2SD1781K

Package:SOT-23



PIN: / STYLE	1	2	3
NO.1	B	E	C

ABSOLUTE MAXIMUM RATINGS at Ta=25℃

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	Vceo	-32	V
Collector-Base Voltage	Vcbo	-40	V
Collector Current	Ic	-0.8	A
Collector Dissipation Ta=25℃*	P_D	200	mW
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55-150	℃

ELECTRICAL CHARACTERISTICS at Ta=25℃

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BVcbo	-40			V	Ic= -50uA
Collector-Emitter Breakdown Voltage#	BVceo	-32			V	Ic= -1mA
Emitter-Base Breakdown Voltage	BVebo	-5			V	Ie= -50uA
Collector-Base Cutoff Current	Icbo			-0.5	uA	Vcb= -20V
Emitter-Base Cutoff Current	Iebo			-0.5	uA	Veb= -4V
DC Current Gain	Hfe	120		390		Vce= -3V Ic= -100mA
Collector-Emitter Saturation Voltage	Vce(sat)			-0.5	V	Ic= -500mA Ib= -50mA
Output Capacitance	Cob		12	30	PF	Vcb= -10V Ie=0 f=1MHz
Current Gain-Bandwidth Product	f_T	50	200		MHz	Vce= -5V Ie= 50mA f=100MHZ

* Total Device Dissipation : FR=1X0.75X0.062in Board,Derate 25℃.

Pulse Test: Pulse Width ≤300uS,Duty cycle ≤2%

DEVICE MARKING:

2SB1197K=AHR

2SB1197K

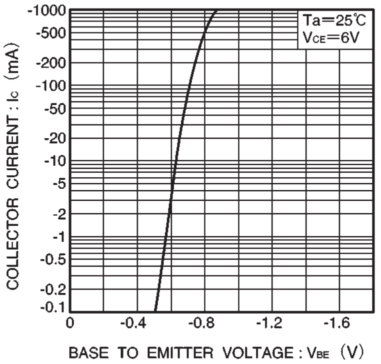


Fig.1 Grounded emitter propagation characteristics

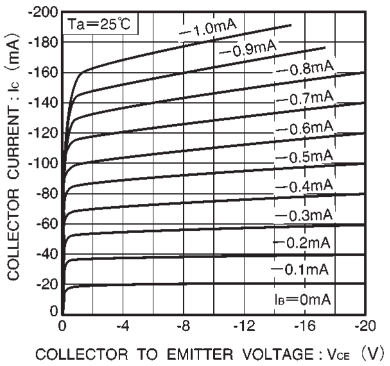


Fig.2 Grounded emitter output characteristics (Ⅰ)

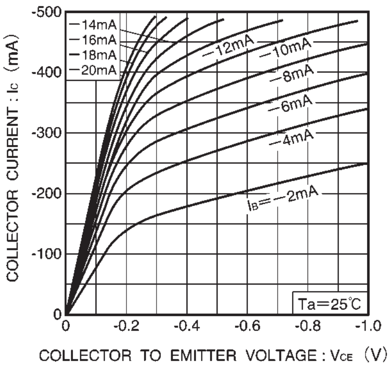


Fig.3 Grounded emitter output characteristics (Ⅱ)

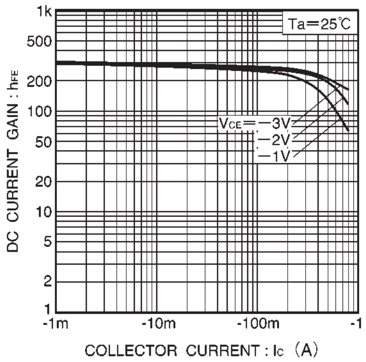


Fig.4 DC current gain vs. collector current

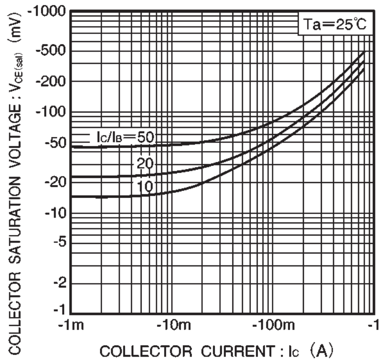


Fig.5 Collector-emitter saturation voltage vs. collector current

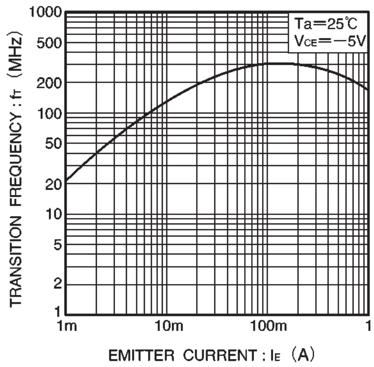


Fig.6 Gain bandwidth product vs. emitter current

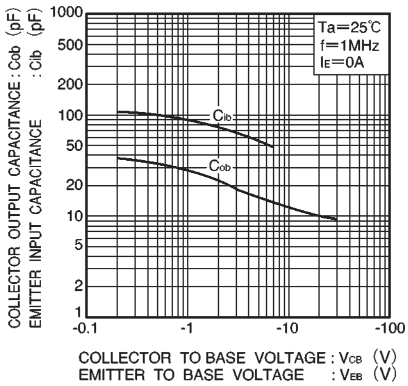


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage