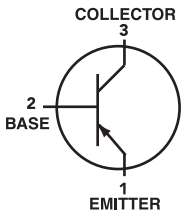
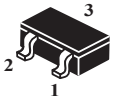
WEITRON

2SB1197K

PNP General Purpose Transistors

Lead(Pb)-Free





SC-59

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-32	Vdc
Collector-Base Voltage	V_{CBO}	-40	Vdc
Emitter-Base VOltage	V_{EBO}	-5	Vdc
Collector Current-Continuous	I_C	-800	mAdc

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (1) TA=25 °C	P_D	200	mW
Derate above 25 °C		1.6	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage, Temperature	$T_{J,Tstg}$	-55 to +150	°C

DEVICE MARKING

2SB1197K=AHR

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I_C=-1.0 mAdc .I_B=0)	$V_{(BR)CEO}$	-32	- -	Vdc
Collector-Base Breakdown Voltage (I_C=-50 μAdc.I_E=0)	$V_{(BR)CBO}$	-40	- -	Vdc
Emitter-Base Breakdown Voltage (I_E=-50 μAdc.I_C=0)	$V_{(BR)EBO}$	-5.0	- -	Vdc
Collector Cutoff Current (V_{CB}=-20 Vdc, I_E= 0)	I_{CBO}	-	-0.5	uAdc
Emitter Cutoff Current (V_{EB}=-4.0Vdc,I_C=0)	I_{EBO}	-	-0.5	uAdc

1.FR-5=1.0 x 0.75 x 0.062 in

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (Countinued)

Characteristics	Symbol	Min	Typ	Max	Unit

ON CHARACTERISTICS

DC Current Gain (I_C=-100 mAdc, V_{CE}=-3.0 Vdc)	h_{FE}	120	-	390	-
Collector-Emitter Saturation Voltage (I_C=-500 mAdc, I_B=-50mAdc)	$V_{CE(sat)}$	-	-	-0.5	Vdc
Output Capacitance V_{CB}=-10Vdc, I_E=0A, f=1MHZ	Cob	-	12	30	PF
Current-Gain-Bandwidth Product (I_E=-50 mAdc, V_{CE}=-5.0 Vdc, f=100MHz)	f_T	5.0	200	-	MHz

CLASSIFICATION OF h_{FE}

Rank	Q	R
Range	120-270	180-390

Electrical characteristic curves

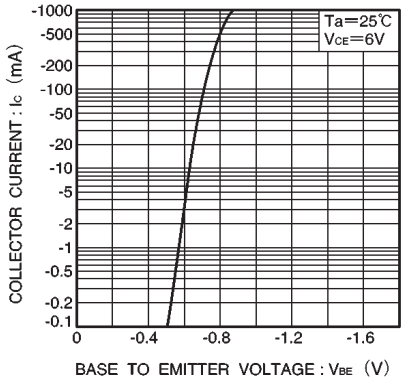


Fig.1 Grounded emitter propagation characteristics

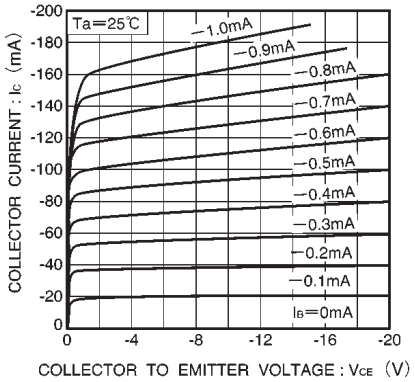


Fig.2 Grounded emitter output characteristics (I)

Electrical characteristic curves

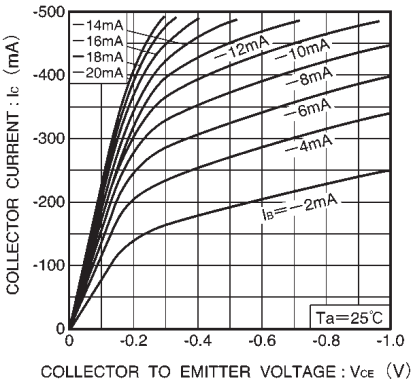


Fig.3 Grounded emitter output characteristics (Ⅱ)

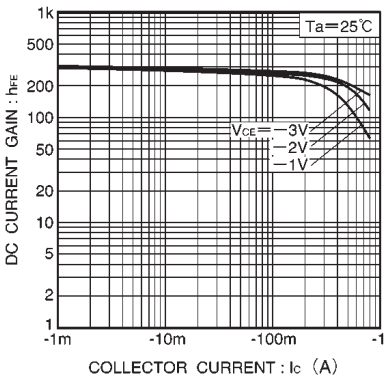


Fig.4 DC current gain vs. collector current

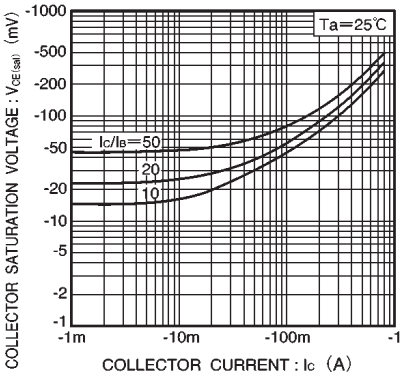


Fig.5 Collector-emitter saturation voltage vs. collector current

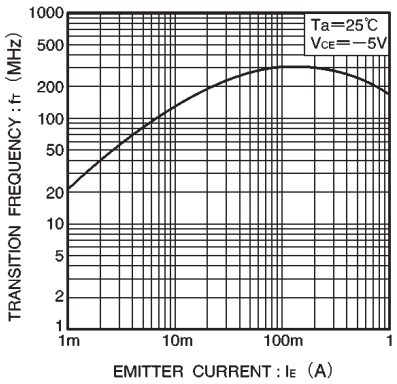


Fig.6 Gain bandwidth product vs. emitter current

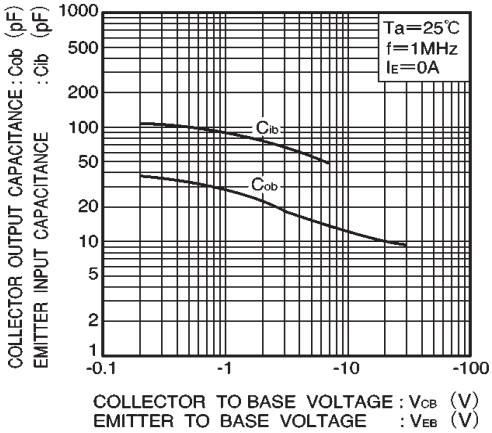


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage