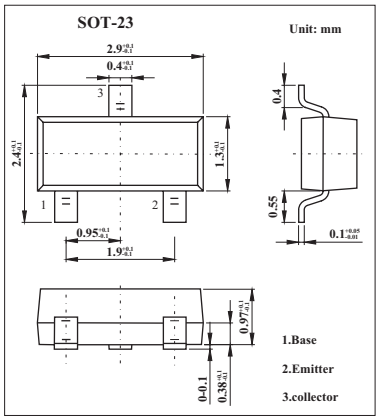
PNP Transistors

2SB1198K



■ Features

- Low $V_{CE(sat)}$.$V_{CE(sat)}$=-0.2V

  $V_{CE(sat)}$=-0.2V
- High berakdown voltage.

  BVCEO=-80V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-80	V
Collector - Emitter Voltage	V_{CEO}	-80	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current	I_C	-0.5	A
Collector Power Dissipation	P_C	0.2	W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V_{CBO}	I_C= -50 μA， I_E=0	-80			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -2 mA， I_B=0	-80			
Emitter - base breakdown voltage	V_{EBO}	I_E= -50μA， I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -50 V , I_E=0			-0.5	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-0.5	
DC current gain	h_{FE}	V_{CE}= -3V, I_C= -100mA	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-0.5A, I_B=-50mA		-0.2	-0.5	V
Collector output capacitance	Cob	V_{CB}= ?10V, I_E=0mA, f=1MHz		11		pF
Transition frequency	f_T	V_{CE}= -10V, I_E= 50mA,f=100MHz		180		MHz

■ Classification of $h_{fe(1)}$

Rank	Q	R
hFE	120-270	180-390

2SB1198K

■ Typical Characteristics

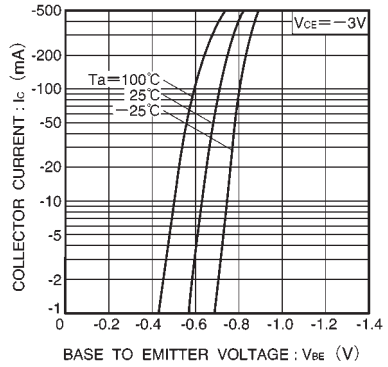


Fig.1 Grounded emitter propagation characteristics

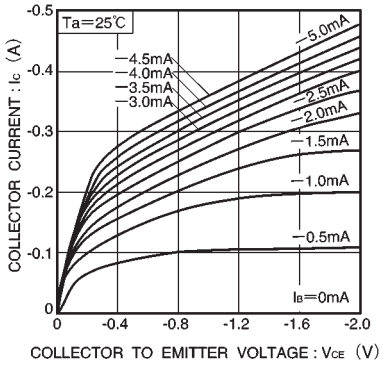


Fig.2 Grounded emitter output characteristics

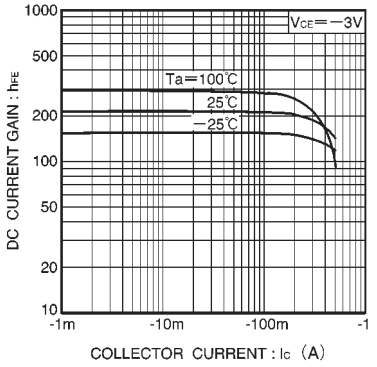


Fig.3 DC current gain vs. collector current

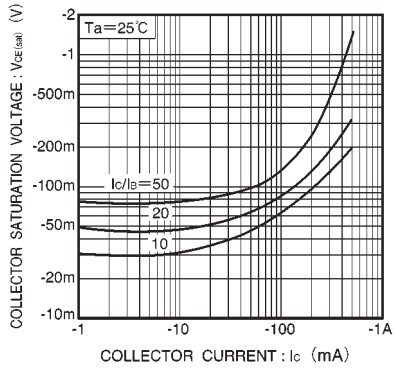


Fig.4 Collector-emitter saturation voltage vs. collector current (Ⅰ)

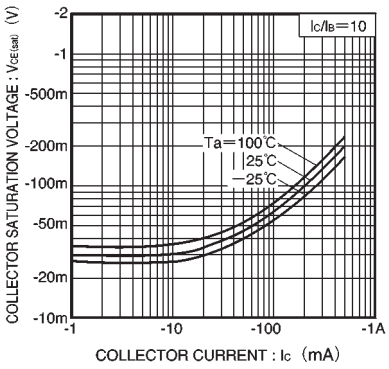


Fig.5 Collector-emitter saturation voltage vs. collector current (Ⅱ)

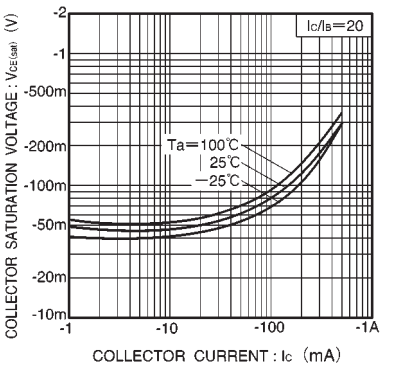


Fig.6 Collector-emitter saturation voltage vs. collector current (Ⅲ)

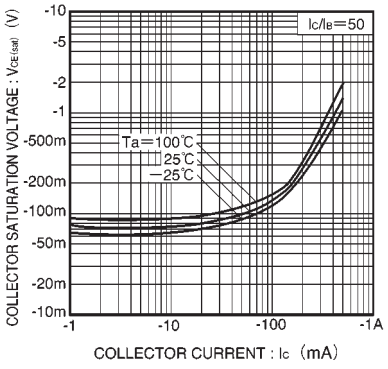


Fig.7 Collector-emitter saturation voltage vs. collector current (Ⅳ)

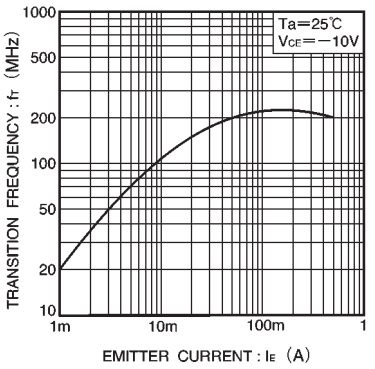


Fig.8 Gain bandwidth product vs. emitter current

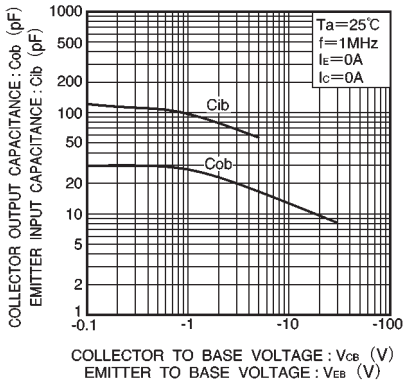


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage