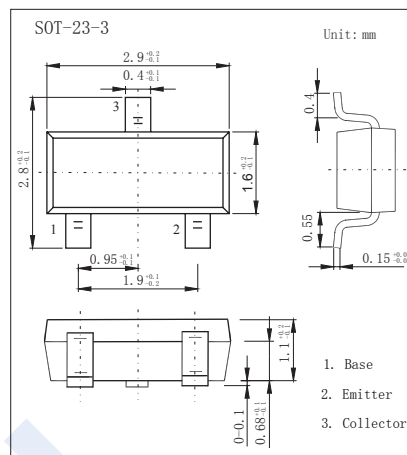


PNP Transistors

2SB1198K

■ Features

- Collector Current Capability $I_C = -0.5A$
- Collector Emitter Voltage $V_{CEO} = -80V$
- Complementary to 2SD1782K

■ Absolute Maximum Ratings $T_a = 25^\circ C$

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 - Continuous	I_C	-0.5	A
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-80			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -2 mA, I_B = 0$	-80			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -80 V, I_E = 0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4 V, I_C = 0$			-0.5	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 mA, I_B = -50 mA$			-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500 mA, I_B = -50 mA$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -3 V, I_C = -100 mA$	120		390	
Collector output capacitance	C_{ob}	$V_{CB} = -10 V, I_E = 0, f = 1 MHz$		11		pF
Transition frequency	f_T	$V_{CE} = -10 V, I_E = 50 mA, f = 100 MHz$		180		MHz

■ Classification of h_{FE}

Type	2SB1198K-Q	2SB1198K-R
Range	120-270	180-390
Marking	AKQ	AKR

PNP Transistors

2SB1198K

■ Typical Characteristics

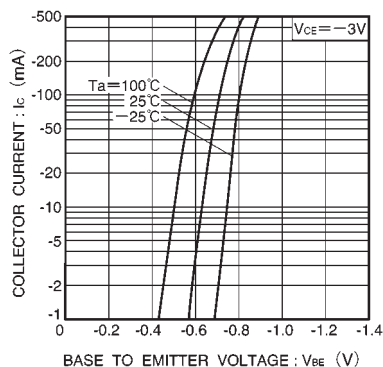


Fig.1 Grounded emitter propagation characteristics

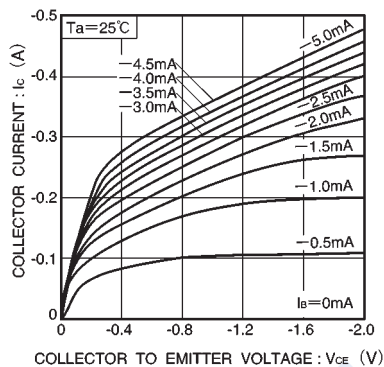


Fig.2 Grounded emitter output characteristics

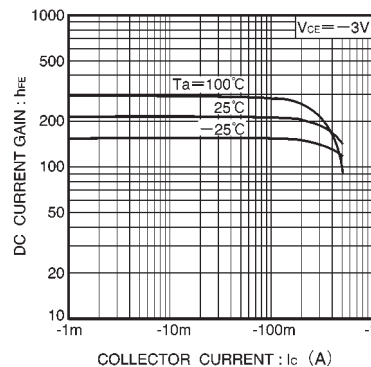


Fig.3 DC current gain vs. collector current

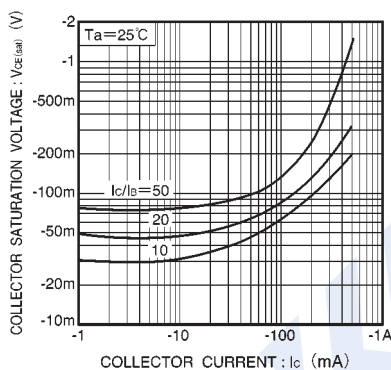


Fig.4 Collector-emitter saturation voltage vs. collector current (I)

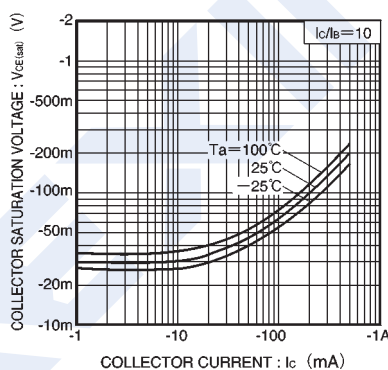


Fig.5 Collector-emitter saturation voltage vs. collector current (II)

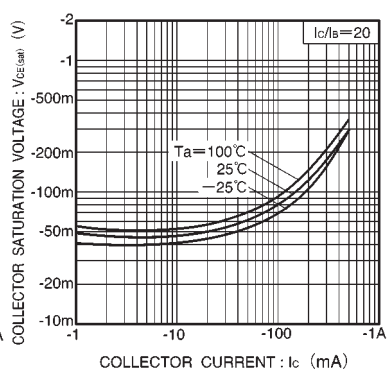


Fig.6 Collector-emitter saturation voltage vs. collector current (III)

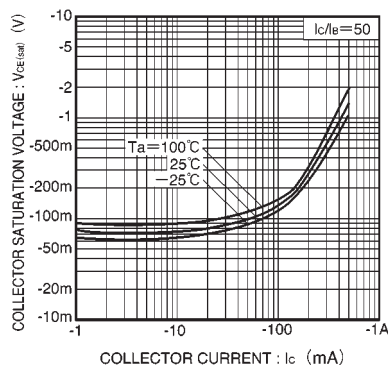


Fig.7 Collector-emitter saturation voltage vs. collector current (IV)

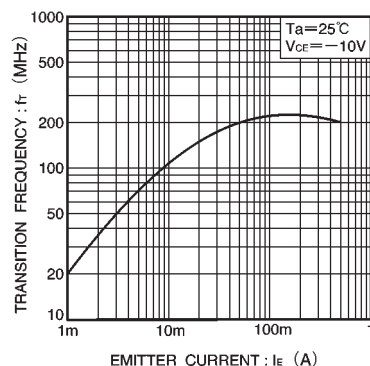
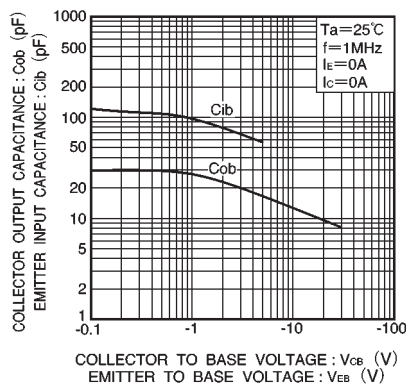


Fig.8 Gain bandwidth product vs. emitter current

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