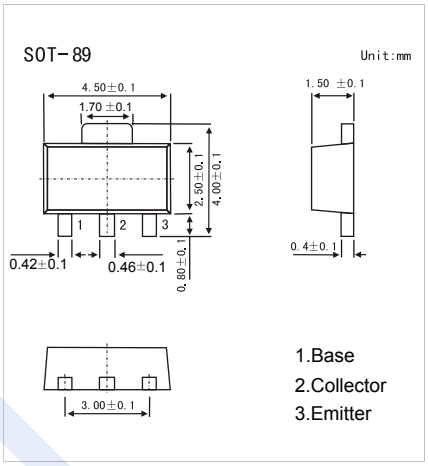
PNP Transistors

2SB1118



■ Features

- Low collector-to-emitter saturation voltage.
- Very small size making it easy to provide high highdensity, small-sized hybrid IC's.
- Complementary to 2SD1618

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-20	V
Collector - Emitter Voltage	V_{CEO}	-15	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-0.7	A
Collector current -Pulse	I_{CP}	-1.5	
Collector Power Dissipation	P_C	0.5	W
(Note.1)		1.3	
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: Mounted on ceramic board ($250mm^2 \times 0.8mm$)

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-20			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, R_{BE}=∞	-15			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -15V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-5 mA, I_B=-0.5mA		-15	-35	mV
		I_C=-100 mA, I_B=-10mA		-60	-120	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-100 mA, I_B=-10mA		-0.8	-1.2	V
DC current gain	h_{FE}	V_{CE}= -2V, I_C= -50 mA	140		560	
		V_{CE}= -2V, I_C= -500 mA	60			
Collector output capacitance	C_{ob}	V_{CB} = –10V, I_E = 0, f = 1MHz		13		pF
Transition frequency	f_T	V_{CE}= -10V, I_C= -50mA		250		MHz

■ Classification of $h_{fe(1)}$

Type	2SB1118-S	2SB1118-T	2SB1118-U
Range	140-280	200-400	280-560
Marking	BA S*	BA T*	BA U*

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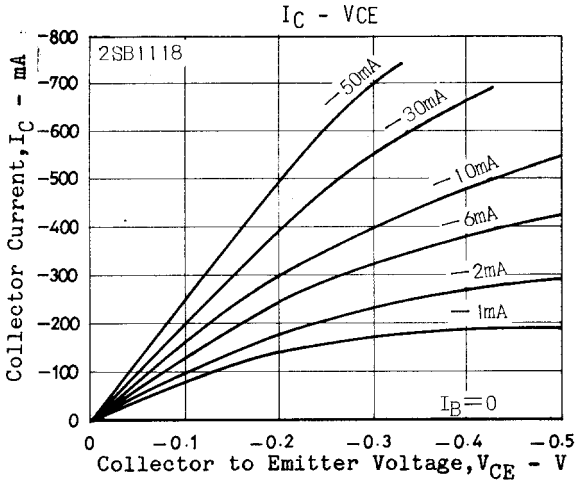
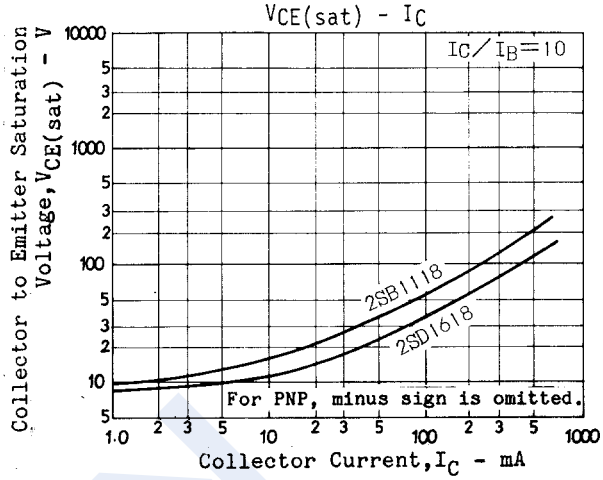
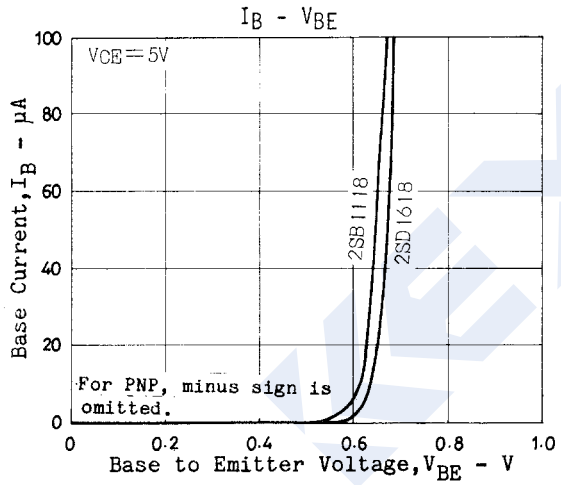
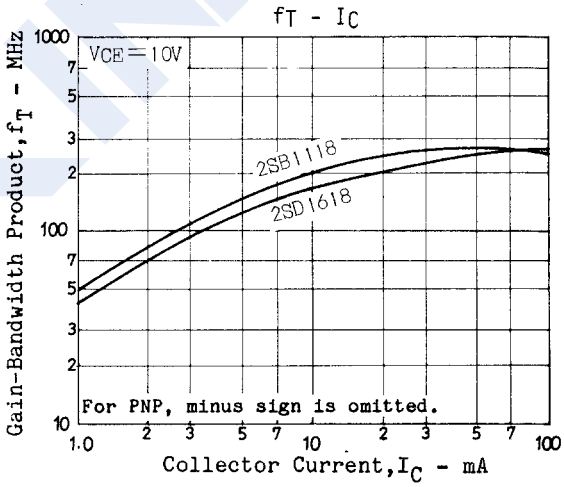
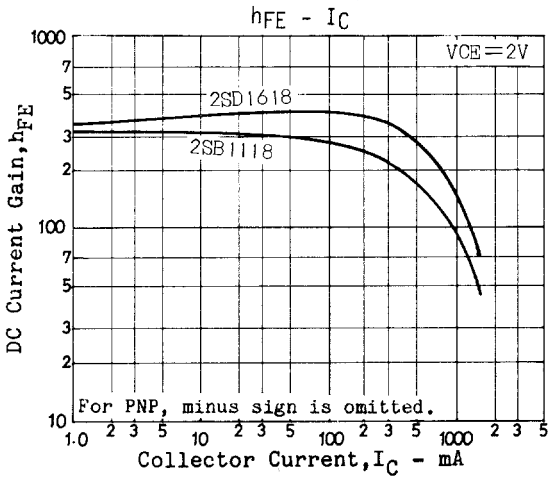
■ Typical Characterisitics

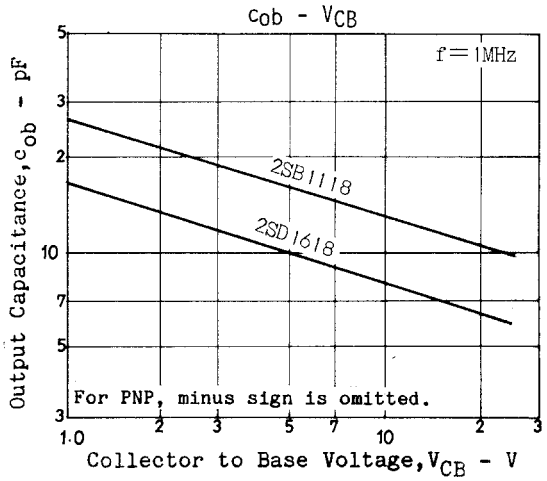












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■ Typical Characterisitics