



2SB1119/2SD1619

LF Amplifier, Electronic Governor Applications

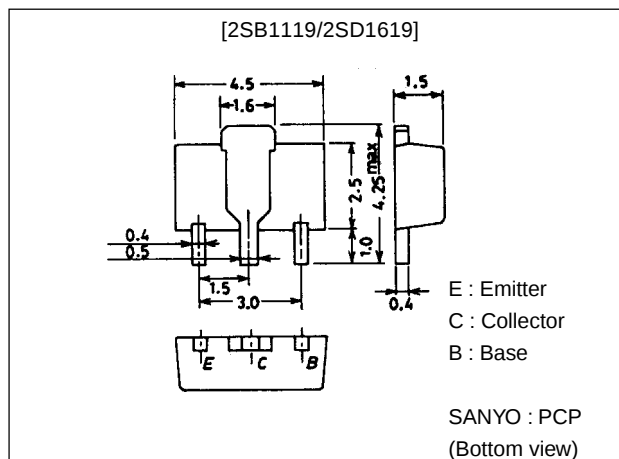
Features

- Very small size making it easy to provide high-density, small-sized hybrid IC's.

Package Dimensions

unit:mm

2038



() : 2SB1119

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)25	V
Collector-to-Emitter Voltage	V_{CEO}		(-)25	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)1	A
Collector Current (Pulse)	I_{CP}		(-)2	A
Collector Dissipation	P_C		500	mW
		Mounted on ceramic board (250mm ² ×0.8mm)	1.3	W
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)20V, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2V, I_C=(-)50mA$	100*		560*	
	h_{FE2}	$V_{CE}=(-)2V, I_C=(-)1A$	40			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		180		MHz

* ; The 2SB1119/2SD1619 are classified by 50mA h_{FE} as follows :

100	R	200	140	S	280	200	T	400	280	U	560
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Marking 2SB1119 : BB

2SD1619 : DB

 h_{FE} rank : R, S, T, U

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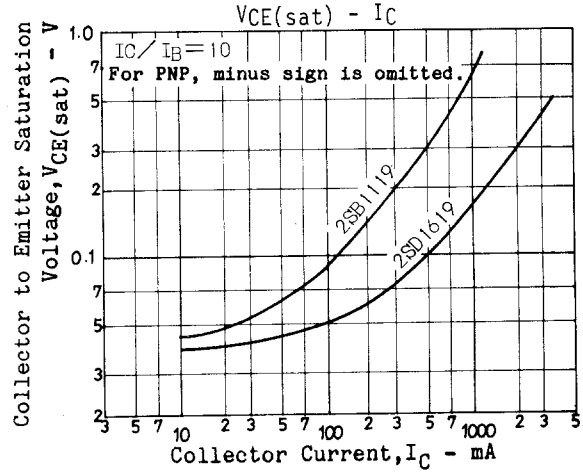
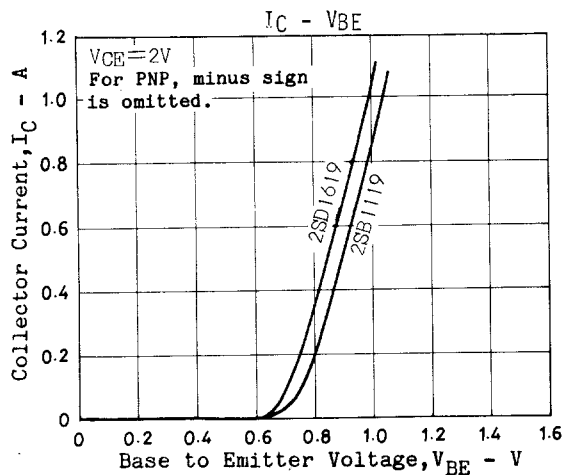
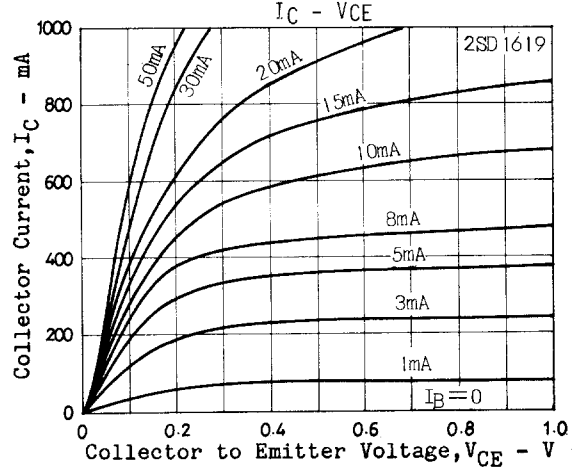
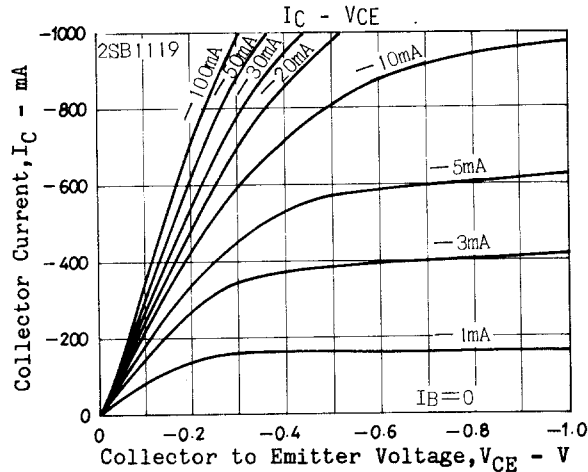
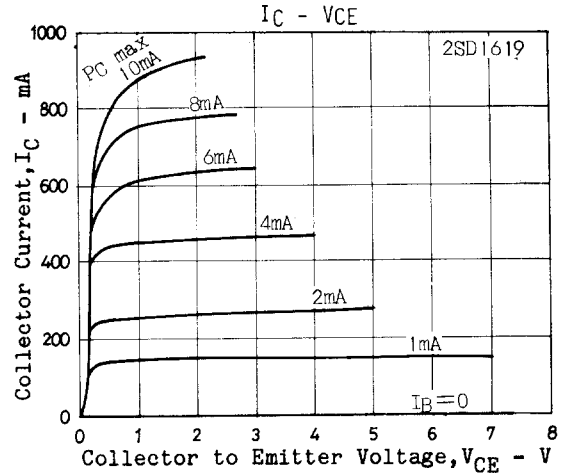
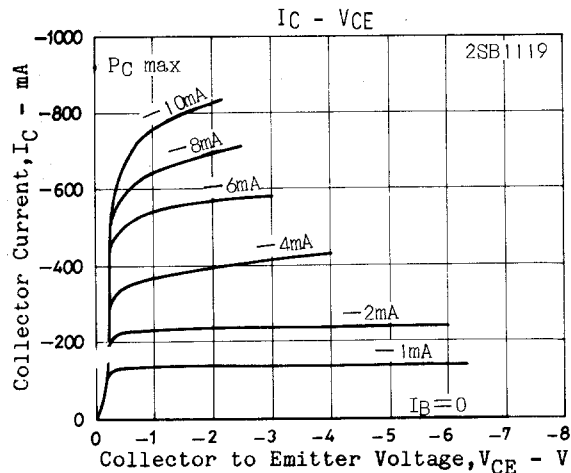
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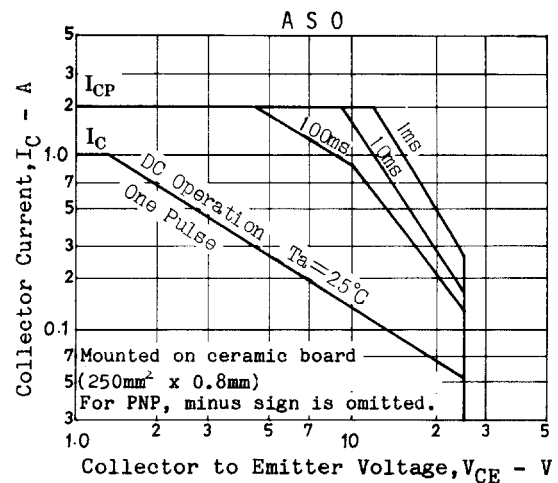
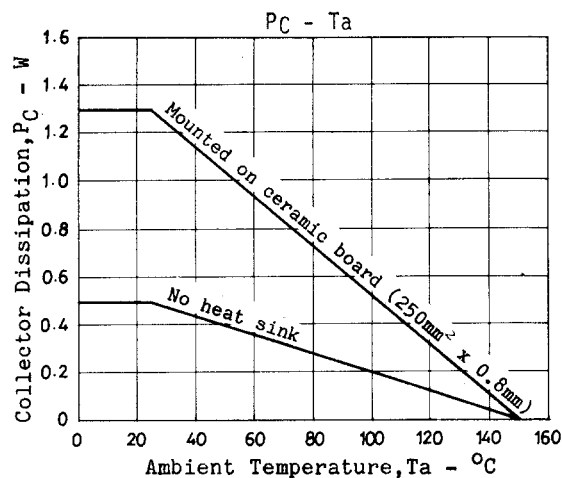
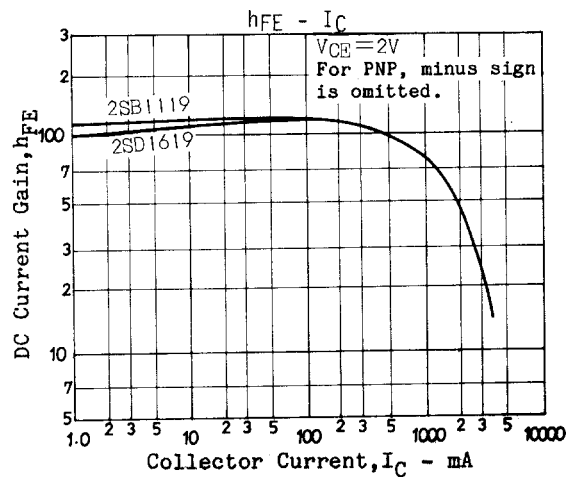
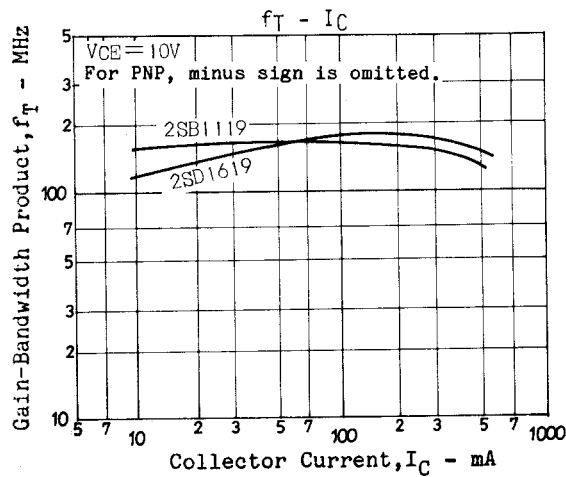
92098HA (KT)/4017KI/2065MW, TS No.1785-1/3

2SB1119/2SD1619

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		0.1	0.3	V
				(-0.15)	(-0.7)	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.85)	(-1.2)	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-25)			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-25)			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-5)			V
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		15		pF
				(25)		pF



2SB1119/2SD1619



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