



2SB815/2SD1048

For General-Purpose AF Amplifier Applications

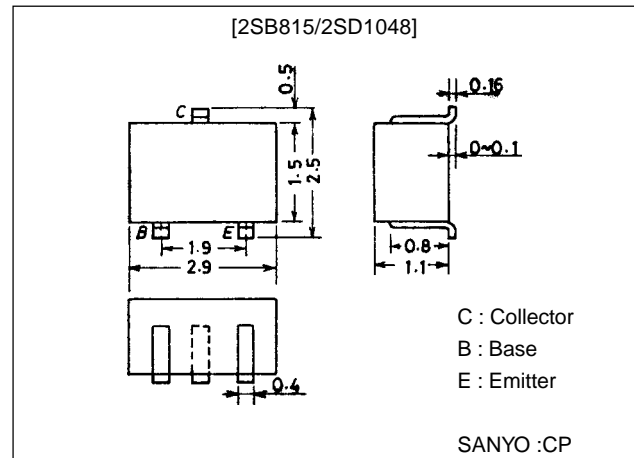
Features

- Very small package enabling compactness and slimness of sets.
- Large current capacity ($I_C=0.7A$) and low saturation voltage.

Package Dimensions

unit:mm

2018A



() : 2SB815

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-150)	V
Collector-to-Emitter Voltage	V_{CEO}		(-120)	V
Emitter-to-Base Voltage	V_{EBO}		(-6)	V
Collector Current	I_C		(-8)	A
Collector Current (Pulse)	I_{CP}		(-12)	A
Collector Dissipation	P_C		80	mW
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-40 to +125	$^\circ C$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)15V, I_E=0$			(-0.1)	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-0.1)	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2V, I_C=(-)50mA$	200*		900*	
	h_{FE2}		(200*)		(600*)	
		$V_{CE}=(-)2V, I_C=(-)500mA$	80			

* : The 2SB815, 2SD1048 are classified by 50mA h_{FE} as follows :

Note : Marking : B (2SB815), X (2SD1048)

 h_{FE} rank : 6, 7 (2SB815), 6, 7, 8 (2SD1048)

2SB815	200	6	400	300	7	600			
2SD1048	200	6	400	300	7	600	450	8	900

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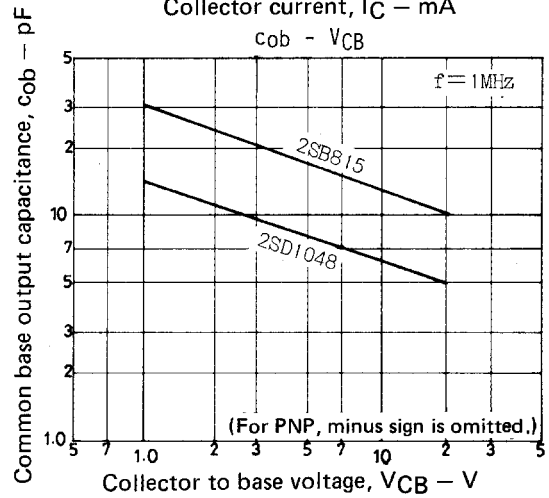
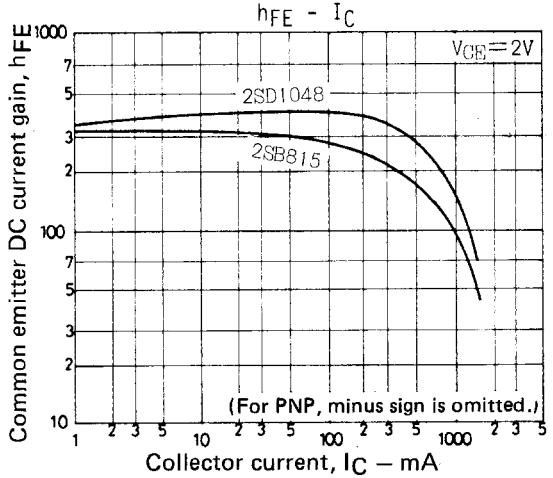
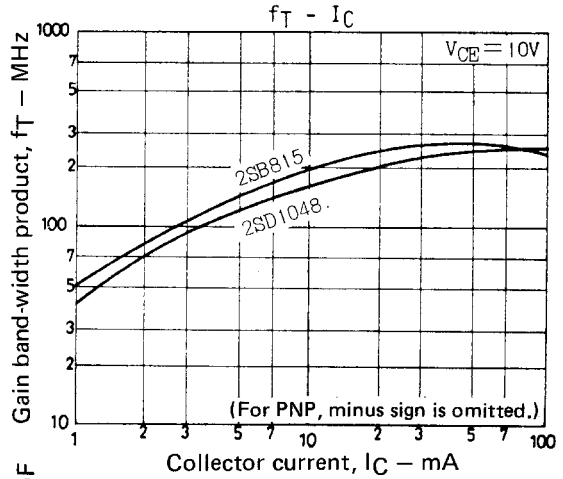
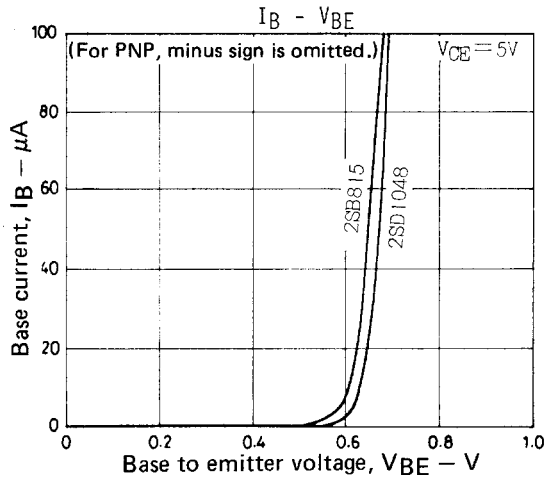
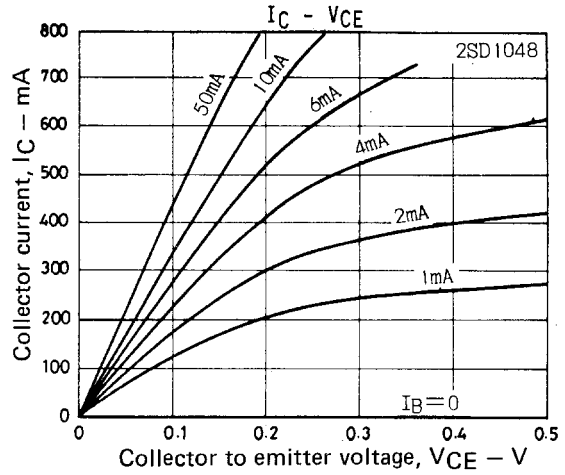
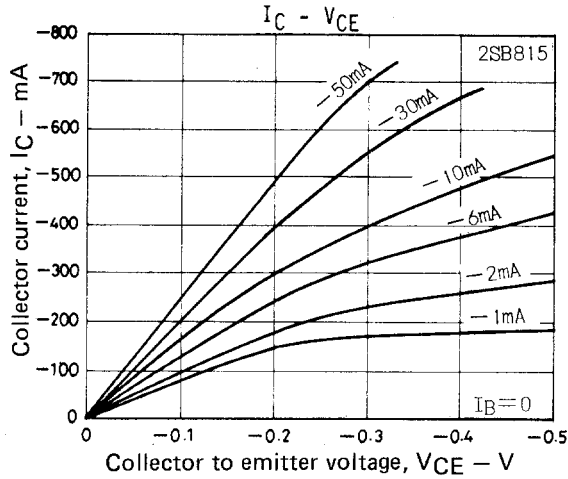
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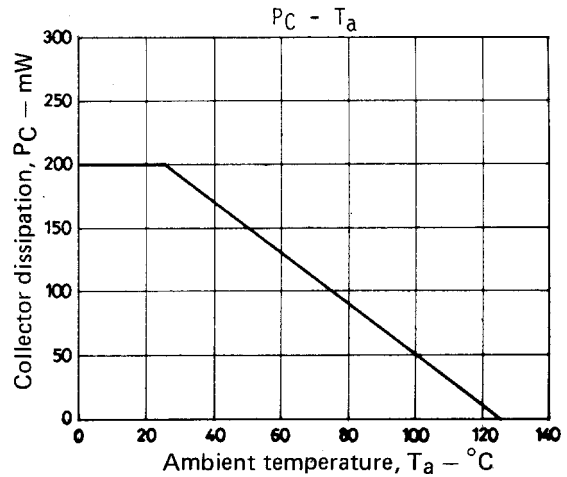
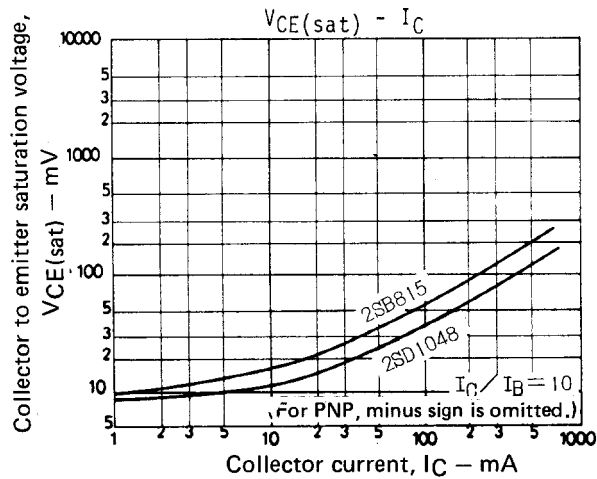
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2SB815/2SD1048

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		250		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(13)		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5mA, I_B=(-)0.5mA$		8		pF
				(-15)	(-35)	mV
	$V_{CE(sat)2}$	$I_C=(-)100mA, I_B=(-)10mA$		10	25	mV
				(-60)	(-120)	mV
			30	80	mV	



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