



2SB514/2SD330

50V/2A Low-Frequency Power Amplifier Applications

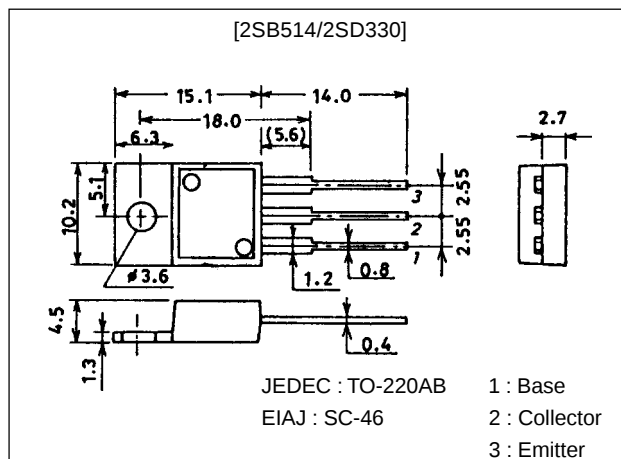
Features

- Especially suited for use in output stage of 10W AF Power amplifier.
- Complementary pair with the 2SB514 and 2SD313.

Package Dimensions

unit:mm

2010C



() : 2SB514

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)50	V
Collector-to-Emitter Voltage	V_{CEO}		(-)50	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)2	A
Collector Current (Pulse)	I_{CP}		(-)5	A
Collector Dissipation	P_C		1.75	W
		$T_c=25^\circ\text{C}$	20	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)20\text{V}, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)1.0	mA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2\text{V}, I_C=(-)1\text{A}$	40*		320*	
	h_{FE2}	$V_{CE}=(-)2\text{V}, I_C=(-)0.1\text{A}$	35			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5\text{V}, I_C=(-)0.5\text{A}$		8		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)2\text{A}, I_B=(-)0.2\text{A}$			(-)1.0	V
Base-to-Emitter Voltage	V_{BE}	$I_C=(-)1\text{A}, V_{CE}=(-)5\text{V}$			(-)1.5	V

* : The 2SB514/2SD330 are classified by $1A h_{FE}$ as follows :

40	C	80	60	D	120	100	E	200	160	F	320
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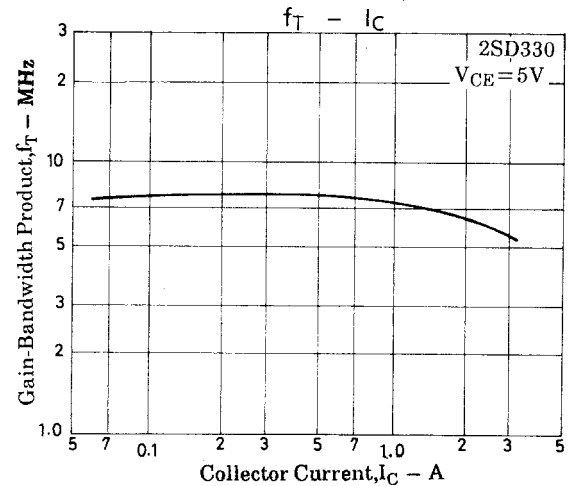
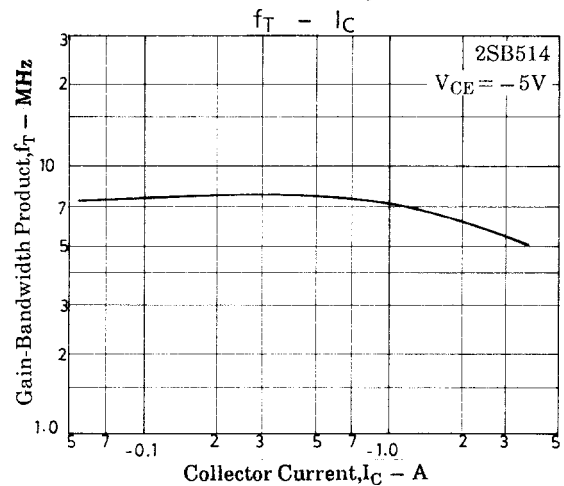
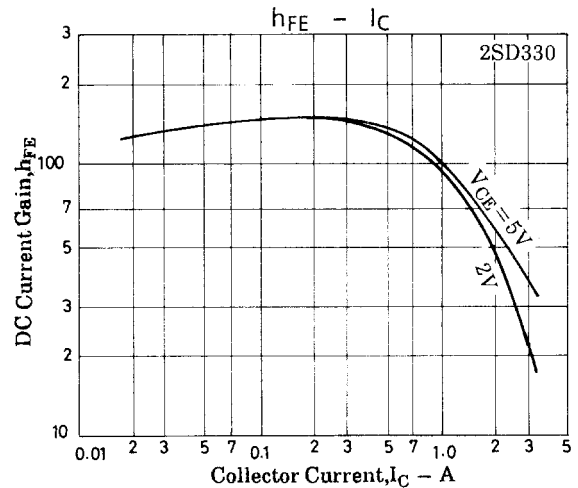
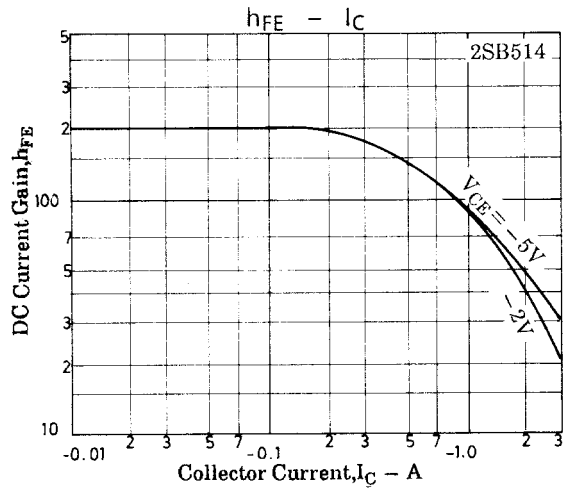
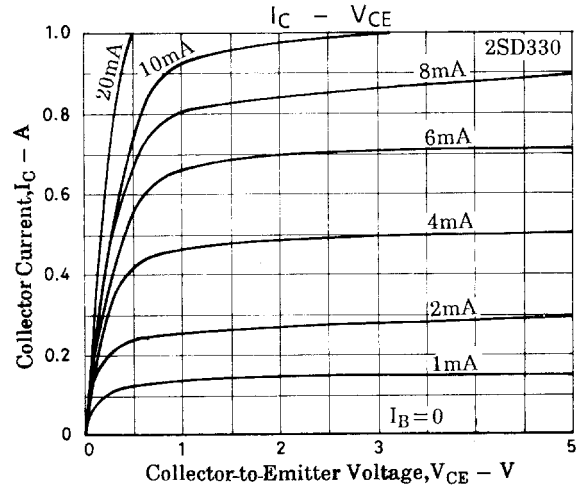
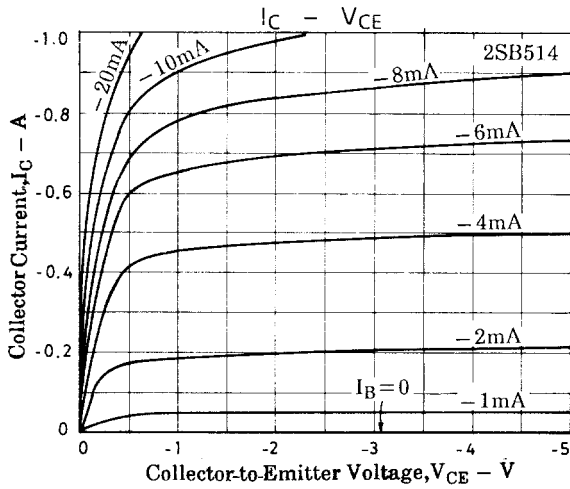
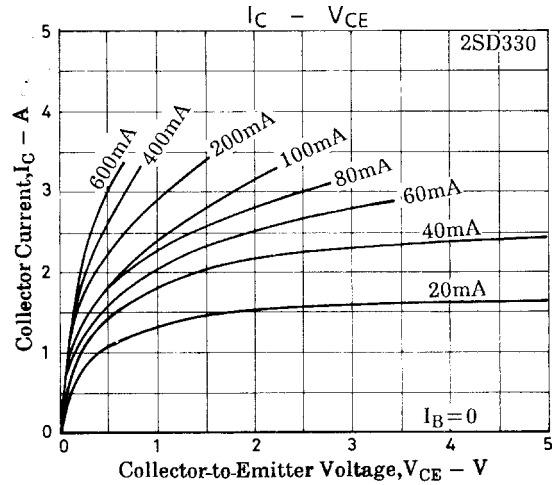
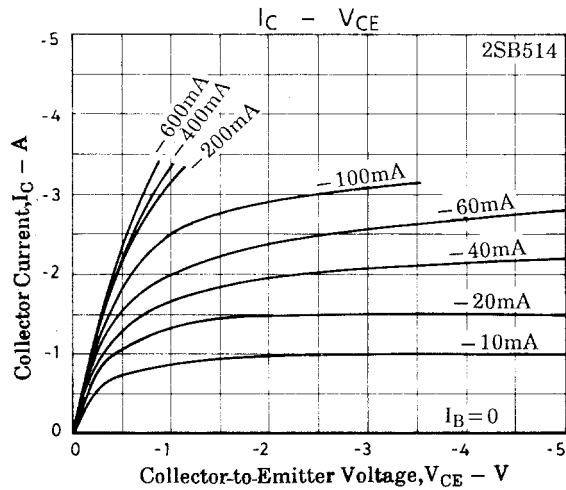
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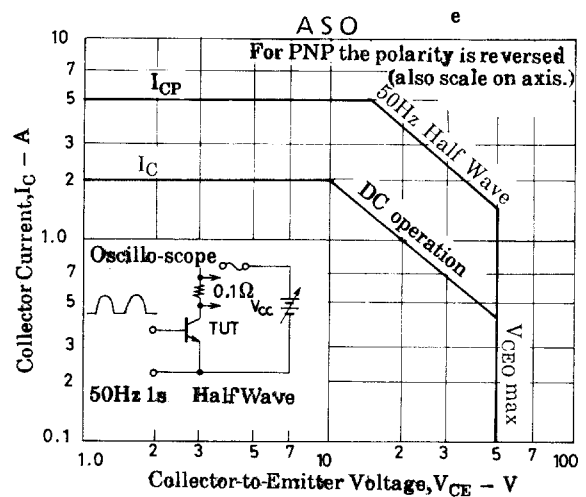
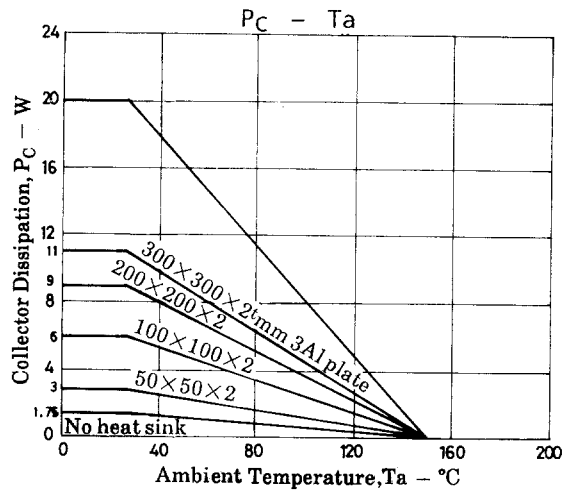
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2SB514/2SD330





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