

## 2SB514/2SD330

# 50V/2A Low-Frequency Power Amplifier Applications

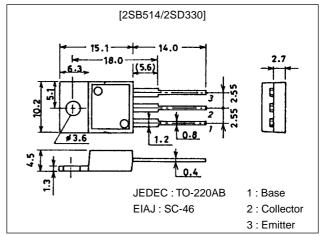
#### **Features**

- · 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 Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		(-)50	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		(-)50	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		(–)5	V
Collector Current	IC		(-)2	Α
Collector Current (Pulse)	I <sub>CP</sub>		(-)5	Α
Collector Dissipation	PC		1.75	W
		Tc=25°C	20	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

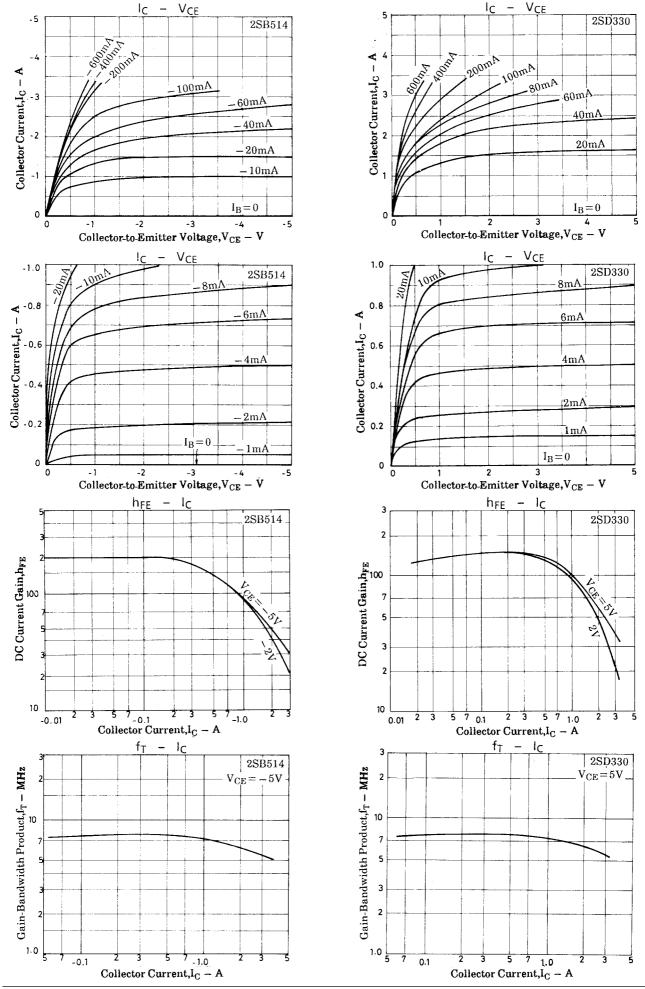
#### Electrical Characteristics at Ta = 25°C

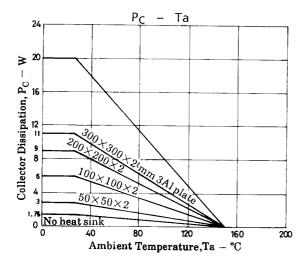
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =(-)20V, I <sub>E</sub> =0			(-)0.1	mA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0			(–)1.0	mA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)1A	40*		320*	
	h <sub>FE</sub> 2	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)0.1A	35			
Gain-Bandwidth Product	fT	V <sub>CE</sub> =(-)5V, I <sub>C</sub> =(-)0.5A		8		MHz
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =(-)2A, I <sub>B</sub> =(-)0.2A			(–)1.0	V
Base-to-Emitter Voltage	V <sub>BE</sub>	I <sub>C</sub> =(-)1A, V <sub>CE</sub> =-(-)5V			(–)1.5	V

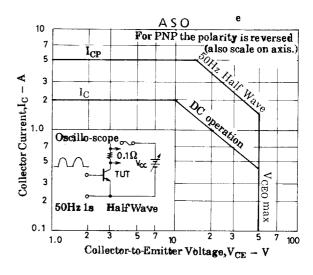
<sup>\*:</sup> The 2SB514/2SD330 are classified by 1A h<sub>FE</sub> as follows:

40 C 80 60 D 120 100 E 200 160 F 320

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