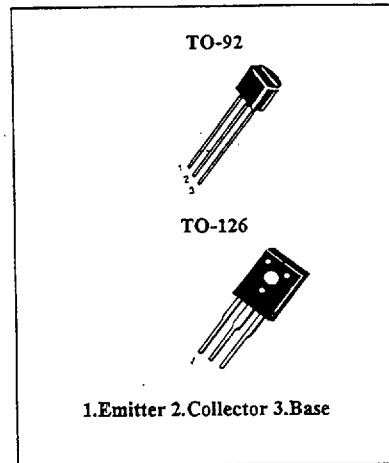


**AUDIO FREQUENCY POWER AMPLIFIER  
LOW SPEED SWITCHING**

- Complement to 2SD882

**ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)**

Characteristic	Symbol	2SB772S Max	2SB772 Max	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-50	-50	V
Collector-Emitter Voltage	V <sub>CE0</sub>	-40	-40	V
Emitter-Bias Voltage	V <sub>EBO</sub>	-5	-5	V
Collector Current (DC)	I <sub>C</sub>	-2	-3	A
*Collector Current (Pulse)	I <sub>C</sub>	-5	-7	A
Base Current (DC)	I <sub>B</sub>	-0.6	-0.6	A
Collector Dissipation (Ta=25°C)	P <sub>C</sub>	-	10	W
Collector Dissipation (Tc=25°C)	P <sub>C</sub>	1	1	W
Junction Temperature	T <sub>j</sub>	150	150	°C
Storage Temperature	T <sub>stg</sub>	-55~150	-55~150	°C



- PW ≤ 10 μs, Duty Cycle ≤ 50%

**ELECTRICAL CHARACTERISTICS (Ta = 25 °C)**

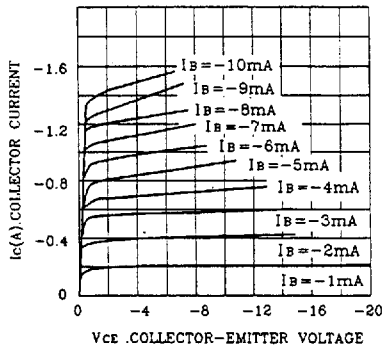
Characteristics	Symbol	Test condition	Min	Typ	Max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =-30V, I <sub>B</sub> =0			-1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =-3V, I <sub>C</sub> =0			-1	μA
*DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-20mA	30	220		
	h <sub>FE2</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A	60	160	400	
*Collector Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A		-0.3	-0.45	V
*Base Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A		-1.0	-2.0	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =0.1A		80		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>B</sub> =0 f=1MHz		55		pF
Noise Figure	NF	V <sub>CE</sub> =10V, I <sub>C</sub> =1mA R <sub>s</sub> =10KΩ, f=1KHz		4		dB

- Pulse Test PW ≤ 350 μs, Duty Cycle ≤ 2%

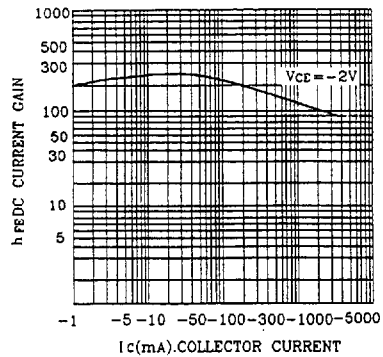
**h<sub>FE</sub>(2) CLASSIFICATION**

Classification	R	O	Y	G
h <sub>FE</sub> (2)	60-120	100-200	160-320	200-400

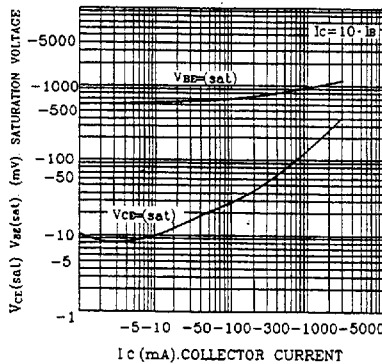
### STATIC CHARACTERISTIC



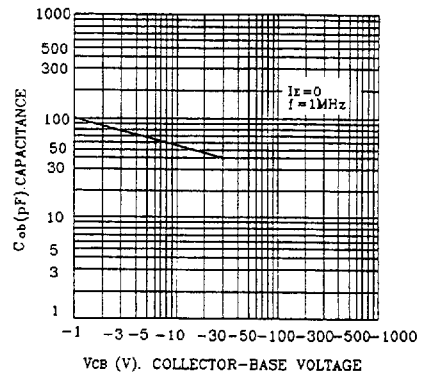
### DC CURRENT GAIN



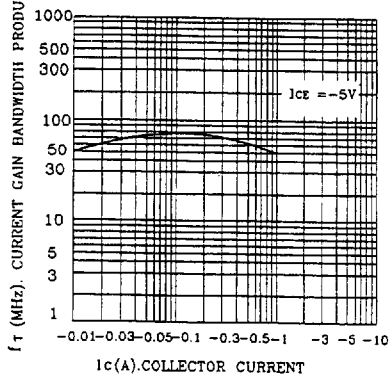
### BASE-EMITTER SATURATION VOLTAGE COLLECTOR-EMITTER SATURATION VOLTAGE



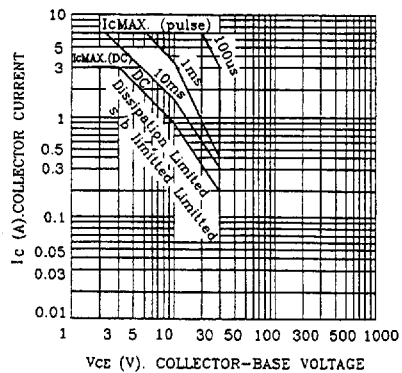
### COLLECTOR OUTPUT CAPACITANCE



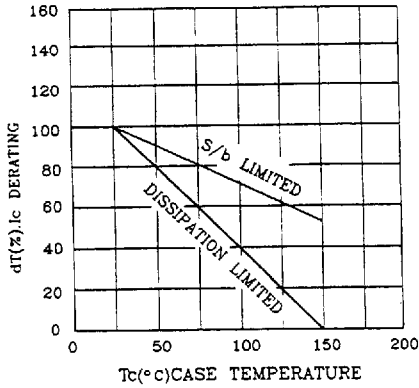
### CURRENT GAIN-BANDWIDTH PRODUCT



### SAFE OPERATING AREAS



**DERATING CURVE OF SAFE OPERATING AREAS**



**POWER DERATING**

