

**STC2SB772 PNP EPITAXIAL SILICON TRANSISTOR**

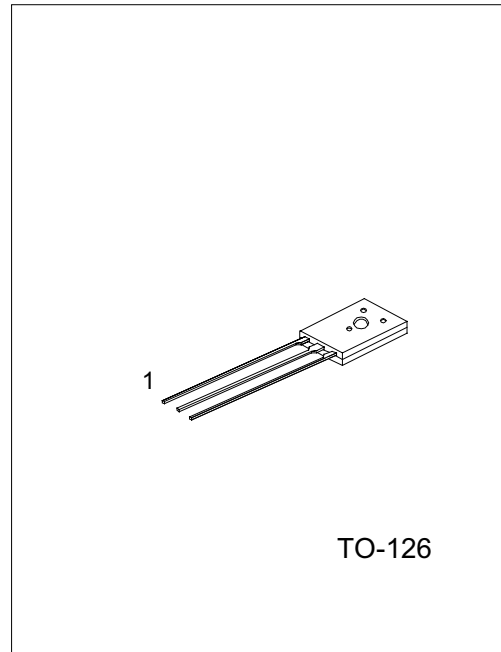
**MEDIUM POWER LOW VOLTAGE TRANSISTOR**

**DESCRIPTION**

The STC 2SB772 is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

**FEATURES**

- \*High current output up to 3A
- \*Low saturation voltage
- \*Complement to 2SD882



TO-126

1:EMITTER 2:COLLECTOR 3:BASE

**ABSOLUTE MAXIMUM RATINGS ( Ta=25°C ,unless otherwise specified )**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-30	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Dissipation( Tc=25°C)	P <sub>c</sub>	10	W
Collector Dissipation( Ta=25°C)	P <sub>c</sub>	1	W
Collector Current(DC)	I <sub>c</sub>	-3	A
Collector Current(PULSE)	I <sub>c</sub>	-7	A
Base Current	I <sub>B</sub>	-0.6	A
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

**ELECTRICAL CHARACTERISTICS(Ta=25°C, unless otherwise specified)**

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I <sub>CB0</sub>	V <sub>CB</sub> =-30V,I <sub>E</sub> =0			-1000	nA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-3V,I <sub>c</sub> =0			-1000	nA
DC Current Gain(note 1)	h <sub>FE1</sub>	V <sub>CE</sub> =-2V,I <sub>c</sub> =-20mA	30	200		
	h <sub>FE2</sub>	V <sub>CE</sub> =-2V,I <sub>c</sub> =-1A	100	150	400	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-2A,I <sub>B</sub> =-0.2A		-0.3	-0.5	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>E</sub> =0,f=1MHz		45		pF

Note 1:Pulse test:PW<300μs,Duty Cycle<2%

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## CLASSIFICATION OF hFE2

RANK	A	B
RANGE	100-200	200-300

## TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

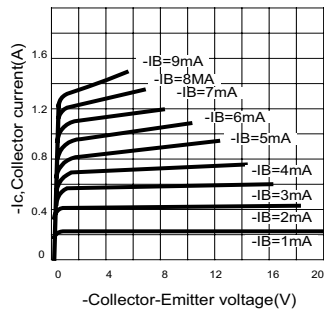


Fig.2 Derating curve of safe operating areas

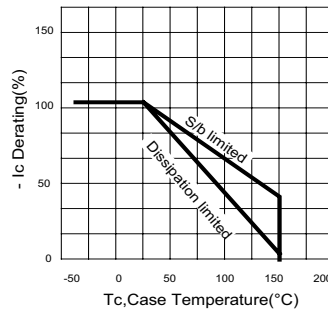


Fig.3 Power Derating

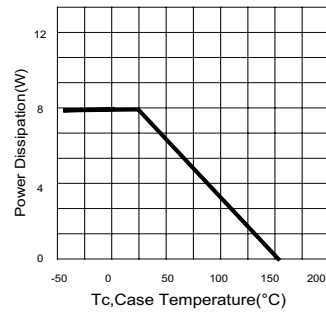


Fig.4 Collector Output capacitance

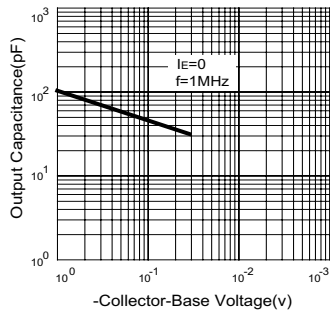


Fig.5 Current gain-bandwidth product

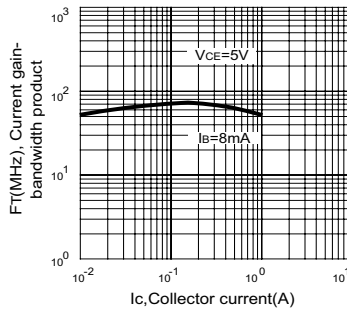


Fig.6 Safe operating area

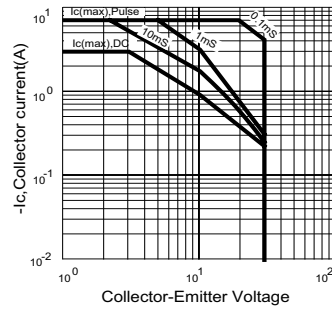


Fig.7 DC current gain

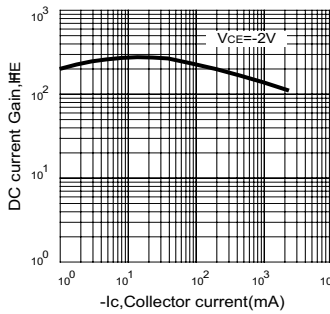


Fig.8 Saturation Voltage

