



# FUKUCOM COMPANY LTD.

## 福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

### ST 2SB772S

#### PNP Silicon Epitaxial Transistor

Medium Power Low Voltage Transistor

The transistor is subdivided into three groups Q, P and E, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



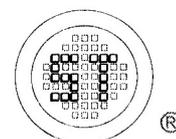
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package  
Weight approx. 0.19g

#### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	-V <sub>CB0</sub>	40	V
Collector-Emitter Voltage	-V <sub>CE0</sub>	30	V
Emitter-Base Voltage	-V <sub>EB0</sub>	5	V
Collector Current	-I <sub>C</sub>	3	A
Peak Collector Current	-I <sub>CM</sub>	7	A
Base Current	-I <sub>B</sub>	600	mA
Collector Dissipation	P <sub>tot</sub>	500	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to + 150	°C

#### Characteristics (T<sub>a</sub> = 25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at -V <sub>CE</sub> = 2 V, -I <sub>C</sub> = 1 A Current Gain Group at -V <sub>CE</sub> = 2 V, -I <sub>C</sub> = 20 mA	Q	h <sub>FE</sub>	100	-	200	-
	P	h <sub>FE</sub>	160	-	320	-
	E	h <sub>FE</sub>	200	-	400	-
		h <sub>FE</sub>	30	-	-	-
Collector Cutoff Current at -V <sub>CB</sub> = 30 V	-I <sub>CB0</sub>	-	-	1	μA	
Emitter Cutoff Current at -V <sub>EB</sub> = 3 V	-I <sub>EB0</sub>	-	-	1	μA	
Collector-Emitter Saturation Voltage at -I <sub>C</sub> = 2 A, -I <sub>B</sub> = 200 mA	-V <sub>CE(sat)</sub>	-	-	0.5	V	
Base-Emitter Saturation Voltage at -I <sub>C</sub> = 2 A, -I <sub>B</sub> = 200 mA	-V <sub>BE(sat)</sub>	-	-	2	V	
Current Gain Bandwidth Product at -V <sub>CE</sub> = 5 V, -I <sub>C</sub> = 0.1 A	f <sub>T</sub>	-	80	-	MHz	
Output Capacitance at -V <sub>CB</sub> = 10 V, f = 1 MHz	C <sub>ob</sub>	-	45	-	pF	



**SEMTECH**

Dated : 04/10/2006



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Fig.1 Static characteristics

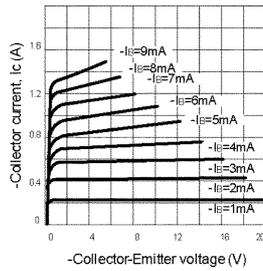


Fig.2 Derating curve of safe operating areas

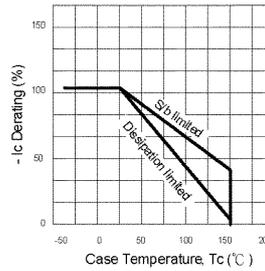


Fig.3 Power Derating

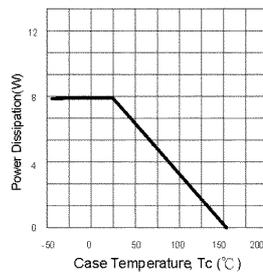


Fig.4 Collector Output capacitance

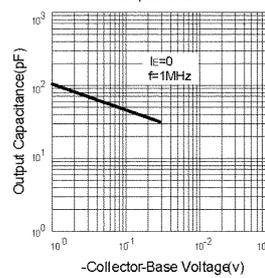


Fig.5 Current gain-bandwidth product

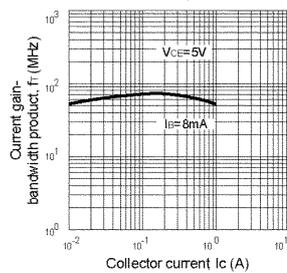


Fig.6 Safe Operating Area

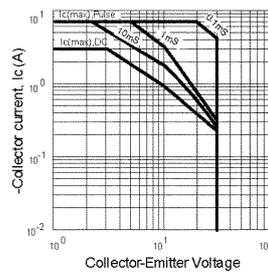


Fig.7 DC current gain

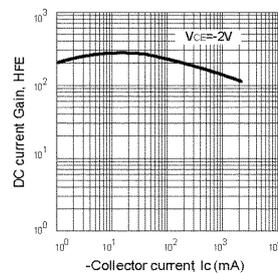
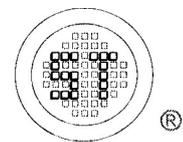
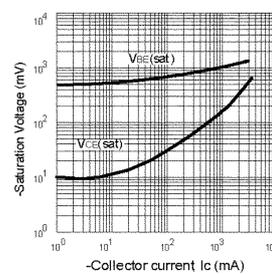


Fig.8 Saturation Voltage



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