

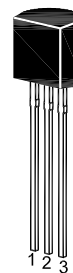
# ST 2SB772S

## 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.



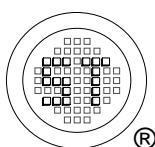
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$-V_{CBO}$	40	V
Collector-Emitter Voltage	$-V_{CEO}$	30	V
Emitter-Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	3	A
Peak Collector Current	$-I_{CM}$	7	A
Base Current	$-I_B$	600	mA
Collector Dissipation	$P_{tot}$	500	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 2\text{ V}$ , $-I_C = 1\text{ A}$  at $-V_{CE} = 2\text{ V}$ , $-I_C = 20\text{ mA}$  Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$  Emitter Base Cutoff Current at $-V_{EB} = 3\text{ V}$  Collector Emitter Saturation Voltage at $-I_C = 2\text{ A}$ , $-I_B = 200\text{ mA}$  Base Emitter Saturation Voltage at $-I_C = 2\text{ A}$ , $-I_B = 200\text{ mA}$  Current Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$ , $-I_C = 0.1\text{ A}$  Output Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	Current Gain Group Q P E	$h_{FE}$	100	-	200	-
		$h_{FE}$	160	-	320	-
		$h_{FE}$	200	-	400	-
		$h_{FE}$	30	-	-	-
	$-I_{CBO}$	-	-	1	$\mu\text{A}$	
	$-I_{EBO}$	-	-	1	$\mu\text{A}$	
	$-V_{CE(sat)}$	-	-	0.5	V	
	$-V_{BE(sat)}$	-	-	2	V	
	$f_T$	-	80	-	MHz	
	$C_{ob}$	-	45	-	pF	



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Fig.1 Static characteristics

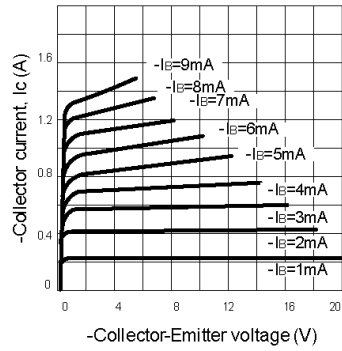


Fig.2 Derating curve of safe operating areas

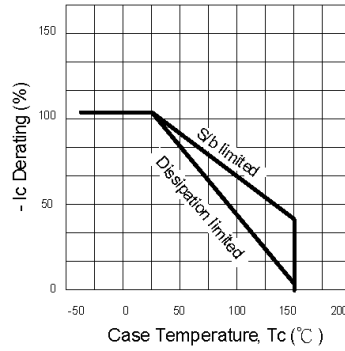


Fig.3 Power Derating

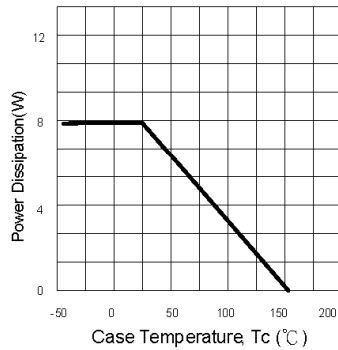


Fig.4 Collector Output capacitance

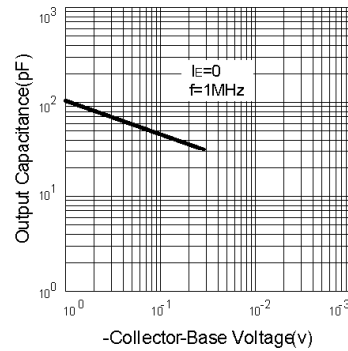


Fig.5 Current gain-bandwidth product

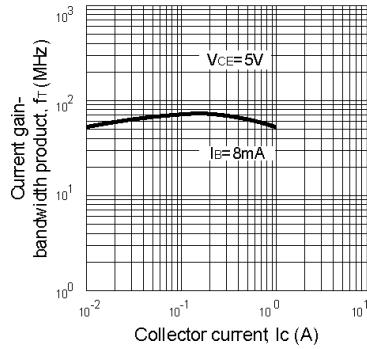


Fig.6 Safe Operating Area

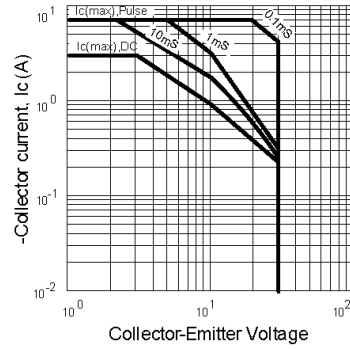


Fig.7 DC current gain

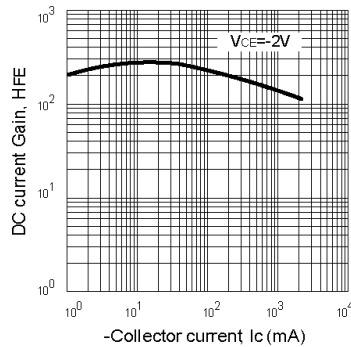
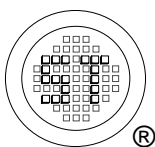
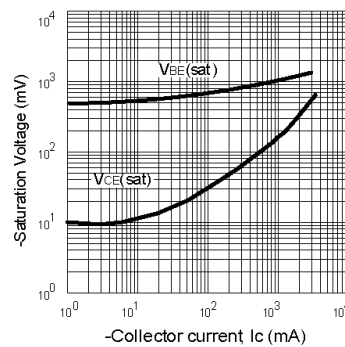


Fig.8 Saturation Voltage



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