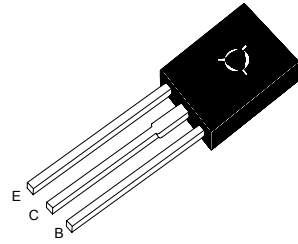


# ST 2SB772T

## PNP SILICON EPITAXIAL POWER TRANSISTOR

These devices are intended for use in audio frequency power amplifier and low speed switching applications



TO-126 Plastic Package

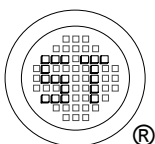
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

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 - DC	$-I_C$	3	A
Collector Current - Pulse <sup>1)</sup>	$-I_C$	7	A
Base Current - DC	$-I_B$	0.6	A
Total Power Dissipation @ $T_C = 25^\circ\text{C}$	$P_D$	10	W
Total Power Dissipation @ $T_A = 25^\circ\text{C}$	$P_D$	1.0	W
Operating and Storage Junction Temperature Range	$T_J, T_S$	- 65 to + 150	$^\circ\text{C}$

<sup>1)</sup> PW=10ms, Duty Cycle  $\leq$  50%

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 2\text{ V}$ , $-I_C = 20\text{ mA}$ at $-V_{CE} = 2\text{ V}$ , $-I_C = 1\text{ A}$	R	$h_{FE}$	30	-	-
	Q	$h_{FE}$	60	-	120
	P	$h_{FE}$	100	-	200
	E	$h_{FE}$	160	-	320
	E	$h_{FE}$	200	-	400
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	30	-	-	V
Collector Base Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ mA}$	$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	-	1	$\mu\text{A}$
Emitter Cutoff Current at $-V_{EB} = 3\text{ V}$	$-I_{EBO}$	-	-	1	$\mu\text{A}$
Collector Emitter Saturation Voltage at $-I_C = 2\text{ A}$ , $-I_B = 200\text{ mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_C = 2\text{ A}$ , $-I_B = 200\text{ mA}$	$-V_{BE(sat)}$	-	-	2	V
Output Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_O$	-	55	-	pF
Current Gain Bandwidth Product at $-I_C = 100\text{ mA}$ , $-V_{CE} = 5\text{ V}$	$f_T$	-	80	-	MHz



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 050098

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