

DESCRIPTION The 2SB772 is PNP silicon transistor suited for the output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

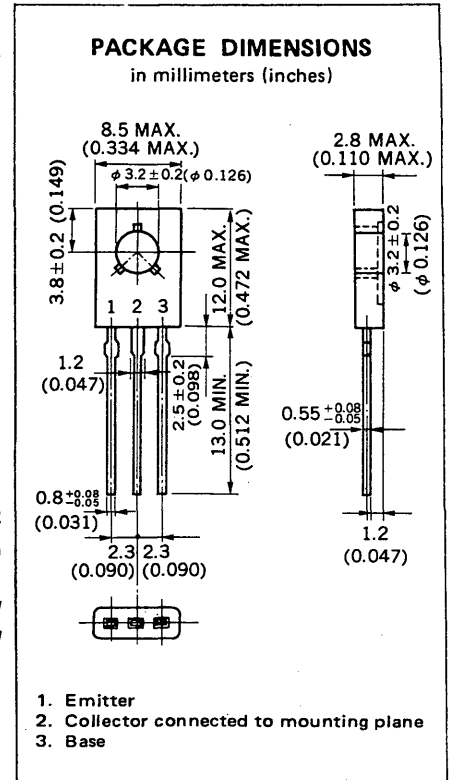
FEATURES

- Low saturation voltage.
 $V_{CE(sat)} \leq -0.5 \text{ V}$ (@ $I_C = -2 \text{ A}$, $I_B = -0.2 \text{ A}$)
- Excellent h_{FE} linearity and high h_{FE} .
 $h_{FE} : 60 \text{ to } 400$ (@ $V_{CE} = -2 \text{ V}$, $I_C = -1 \text{ A}$)
- Less cramping space required due to small and thin package and reducing the trouble for attachment to a radiator.
No insulator bushing required.

ABSOLUTE MAXIMUM RATINGS

- Maximum Temperatures
 Storage Temperature -55 to +150 °C
 Junction Temperature 150 °C Maximum
- Maximum Power Dissipations
 Total Power Dissipation ($T_a = 25 \text{ °C}$) 1.0 W
 Total Power Dissipation ($T_c = 25 \text{ °C}$) 10 W
- Maximum Voltages and Currents ($T_a = 25 \text{ °C}$)
 V_{CBO} Collector to Base Voltage -40 V
 V_{CEO} Collector to Emitter Voltage -30 V
 V_{EBO} Emitter to Base Voltage -5.0 V
 $I_{C(DC)}$ Collector Current (DC) -3.0 A
 $I_{C(pulse)}$ * Collector Current (pulse) -7.0 A

*Pulse Test $PW \leq 350 \mu s$, Duty Cycle $\leq 2 \%$



ELECTRICAL CHARACTERISTICS ($T_a = 25 \text{ °C}$)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}	DC Current Gain	30	220			$V_{CE} = -2.0 \text{ V}$, $I_C = -20 \text{ mA}$ **
h_{FE2}	DC Current Gain	60	160	400		$V_{CE} = -2.0 \text{ V}$, $I_C = -1.0 \text{ A}$ **
f_T	Gain Bandwidth Product		80		MHz	$V_{CE} = -5.0 \text{ V}$, $I_C = -0.1 \text{ A}$
C_{ob}	Output Capacitance		55		pF	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1.0 \text{ MHz}$
I_{CBO}	Collector Cutoff Current			-1.0	μA	$V_{CB} = -30 \text{ V}$, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			-1.0	μA	$V_{EB} = -3.0 \text{ V}$, $I_C = 0$
$V_{CE(sat)}$	Collector Saturation Voltage		-0.3	-0.5	V	$I_C = -2.0 \text{ A}$, $I_B = -0.2 \text{ A}$ **
$V_{BE(sat)}$	Base Saturation Voltage		-1.0	-2.0	V	$I_C = -2.0 \text{ A}$, $I_B = -0.2 \text{ A}$ **

**Pulse Test : $PW \leq 350 \mu s$, Duty Cycle $\leq 2 \%$

Classification of h_{FE}

Rank	R	Q	P	E
Range	60 to 120	100 to 200	160 to 320	200 to 400

Test Conditions : $V_{CE} = -2.0 \text{ V}$, $I_C = -1.0 \text{ A}$

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

