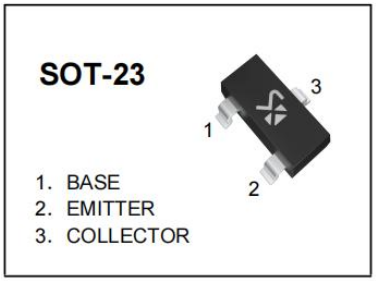
# B772S

## PNP Silicon Epitaxial Planar Transistor




## Features

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

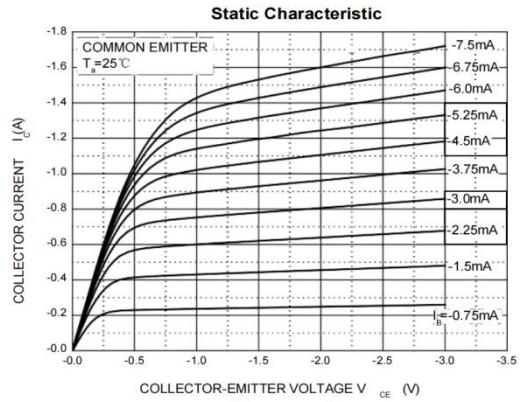
## Absolute Maximum Ratings ($T_A$=25℃ unless otherwise noted)

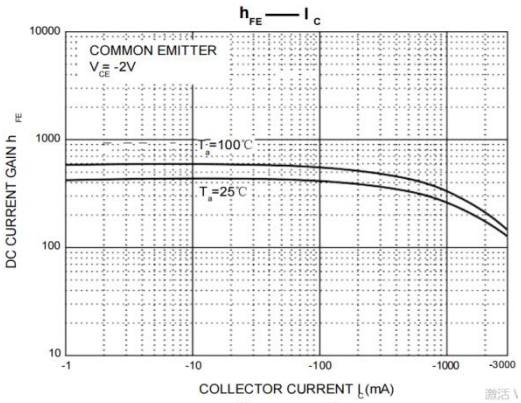
| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | -40 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | -30 | V |
| Emitter-Base Voltage | $V_{CBO}$ | -5 | V |
| Collector Current -Continuous | $I_C$ | -3 | A |
| Peak Collector Current (t = 10 ms) | $I_{CP}$ | -7 | A |
| Base Current | $I_B$ | -0.6 | A |
| Total Power Dissipation($T_a$=25℃) | $P_D$ | 0.5 | W |
| Total Power Dissipation($T_c$=25℃) | $P_D$ | 5 | W |
| Thermal Resistance,Junction to Ambient | $R_{\theta JA}$ | 250 | ℃/W |
| Junction Temperature | $T_J$ | 150 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -65~+150 | ℃ |

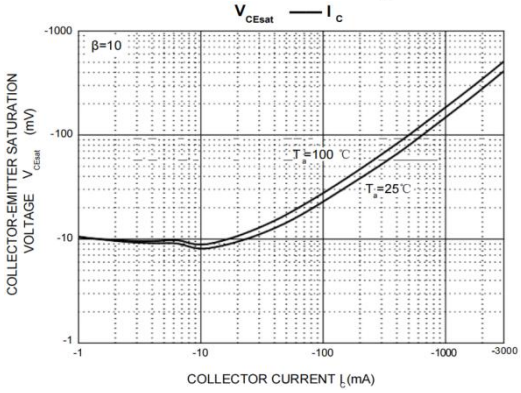
## Electrical Characteristics ($T_A$=25℃ unless otherwise specified)

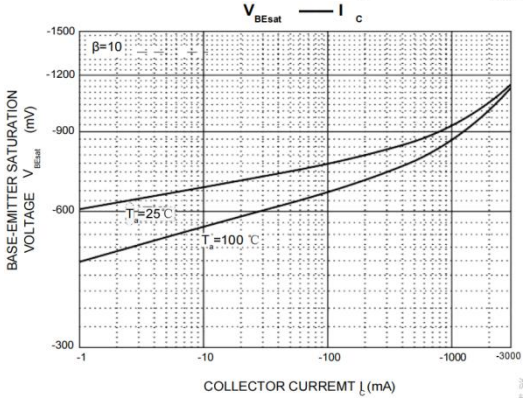
| Parameter | Symbol | Test Condition | | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|---|
| Collector- base breakdown voltage | $BV_{CBO}$ | $I_C$ = -1mA, $I_E$ = 0 | | -40 | | | V |
| Collector-emitter breakdown voltage | $BV_{CEO}$ | $I_C$ = -1mA, $I_B$ = 0 | | -30 | | | V |
| Emitter - base breakdown voltage | $BV_{EBO}$ | $I_E$ = -1mA, $I_C$ = 0 | | -5 | | | V |
| Collector cut-off current | $I_{CBO}$ | $V_{CB}$ = -30V, $I_E$ = 0 | | | | -1 | μA |
| Emitter cut-off current | $I_{EBO}$ | $V_{EB}$ = -3V, $I_C$ = 0 | | | | -1 | μA |
| DC current gain | $h_{FE}$ | $V_{CE}$ = -2V,$I_C$ = -20mA | | 30 | | | |
| | | $V_{CE}$ = -2V,$I_C$ = -1A | R | 60 | | 120 | |
| | | | Q | 100 | | 200 | |
| | | | P | 160 | | 320 | |
| | | | E | 200 | | 400 | |
| Collector-emitter saturation voltage | $V_{CE(SAT)}$ | $I_C$ = -2A,$I_B$ = -200mA | | | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(SAT)}$ | $I_C$ = -2A,$I_B$ = -200mA | | | | -2 | V |
| Transition frequency | $f_T$ | $V_{CE}$=-5V, $I_C$ = -100mA | | | 80 | | MHz |
| Output Capacitance | $C_{ob}$ | $V_{CB}$ = -10V,$I_E$ = 0,f = 1MHz | | | 55 | | pF |

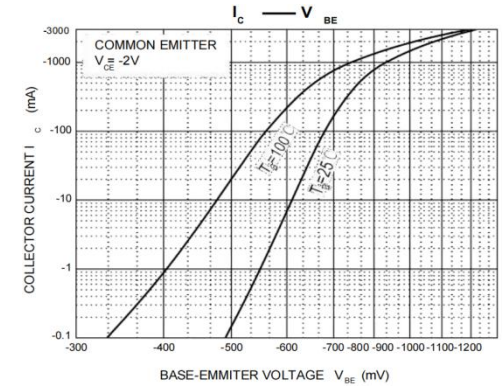
# Typical Characteristics

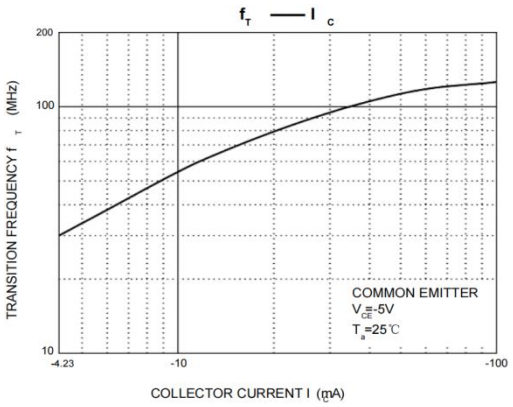


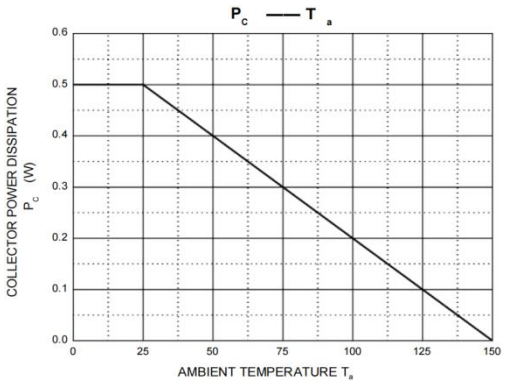



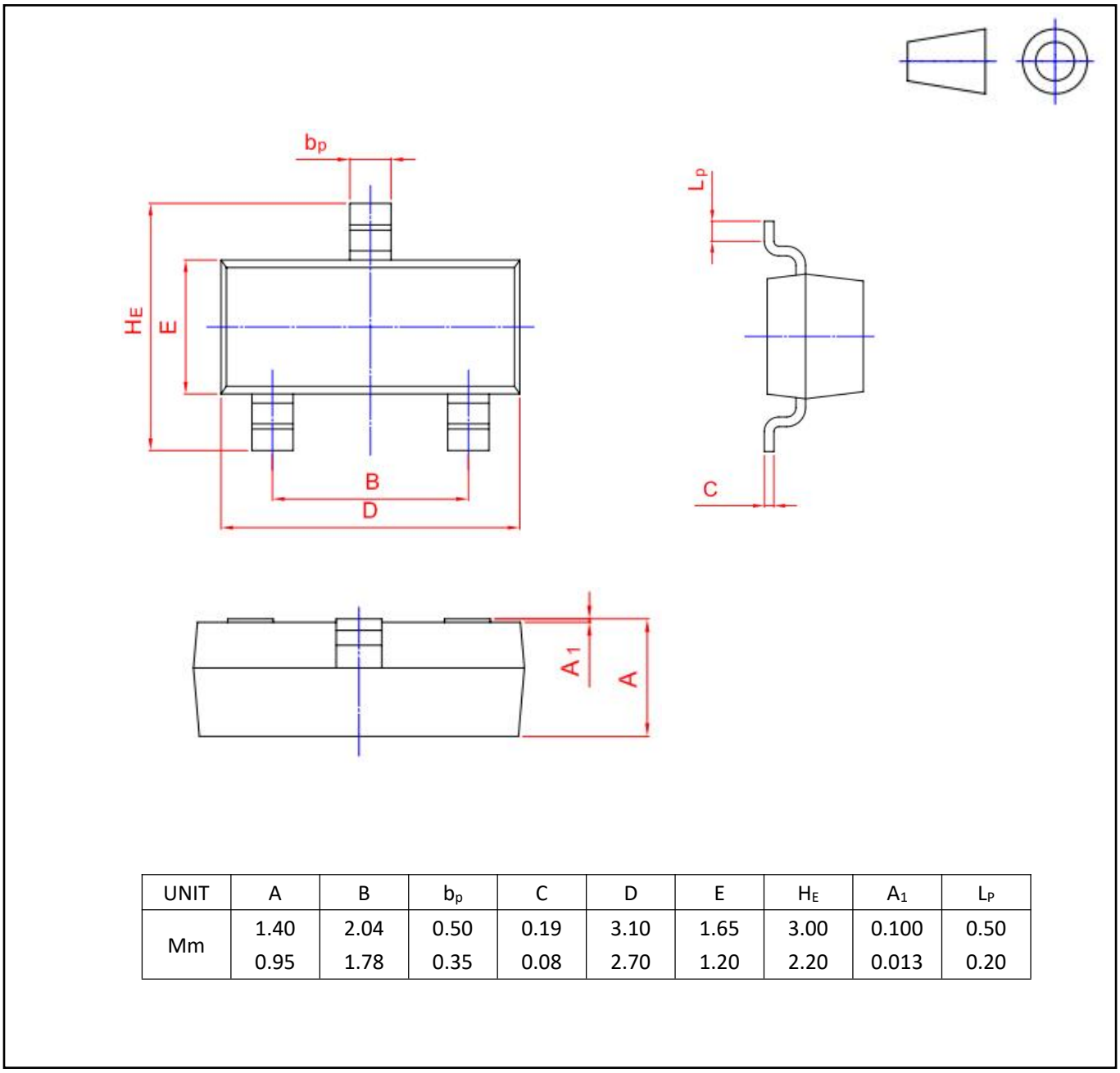



## Package Information

## SOT-23

## Dimensions in mm




| UNIT | A | B | $b_p$ | C | D | E | $H_E$ | $A_1$ | $L_P$ |
|---|---|---|---|---|---|---|---|---|---|
| Mm | 1.40 | 2.04 | 0.50 | 0.19 | 3.10 | 1.65 | 3.00 | 0.100 | 0.50 |
| | 0.95 | 1.78 | 0.35 | 0.08 | 2.70 | 1.20 | 2.20 | 0.013 | 0.20 |