

# SILICON PNP TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

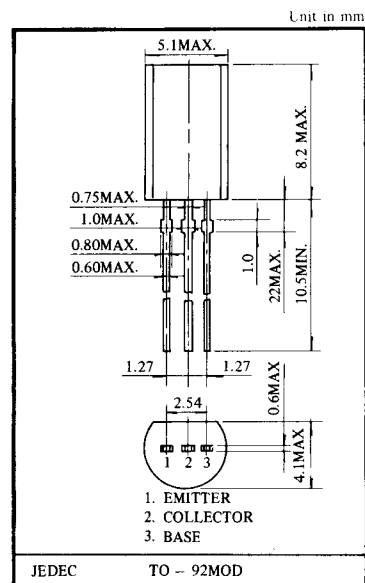
# 2SA1273

## APPLICATIONS

- Audio Power Amplifier Applications.

## FEATURES

- Complementary to 2SC 3205  
and 3 Watts Output Applications.



## ■ MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

| CHARACTERISTIC            | SYMBOL    | RATING | UNIT | CHARACTERISTIC        | SYMBOL    | RATING    | UNIT             |
|---------------------------|-----------|--------|------|-----------------------|-----------|-----------|------------------|
| Collector-Base Voltage    | $V_{CB0}$ | -30    | V    | Emitter Current       | $I_E$     | 2         | A                |
| Collector-Emitter Voltage | $V_{CE0}$ | -30    | V    | Collector Dissipation | $P_C$     | 1         | W                |
| Emitter-Base Voltage      | $V_{EB0}$ | -5     | V    | Junction Temperature  | $T_j$     | 150       | $^\circ\text{C}$ |
| Collector Current         | $I_C$     | -2     | A    | Storage Temperature   | $T_{stg}$ | -55 ~ 150 | $^\circ\text{C}$ |

## ■ ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION                                   | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|--------------------------------------------------|------|------|------|------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB} = -30\text{V}, I_E = 0$                  | —    | —    | -100 | nA   |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB} = -5\text{V}, I_C = 0$                   | —    | —    | -100 | nA   |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C = -10\text{mA}, I_B = 0$                    | -30  | —    | —    | V    |
| Emitter-Base Breakdown Voltage       | $V_{(BR)EBO}$ | $I_E = -1\text{mA}, I_C = 0$                     | -5   | —    | —    | V    |
| DC Current Gain                      | $h_{FE}$      | $V_{CE} = -2\text{V}, I_C = -500\text{mA}$       | 100  | —    | 320  |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -1.5\text{A}, I_B = -0.03\text{A}$        | —    | —    | -2.0 | V    |
| Base-Emitter Voltage                 | $V_{BE}$      | $V_{CE} = -2\text{V}, I_C = -500\text{mA}$       | —    | —    | -1.0 | V    |
| Transition Frequency                 | $f_T$         | $V_{CE} = -2\text{V}, I_C = -500\text{mA}$       | —    | 120  | —    | MHz  |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | —    | 48   | —    | pF   |

■ NOTE: According to  $h_{FE}$ , Classified as follows.

|   |         |   |         |
|---|---------|---|---------|
| 0 | 100-200 | Y | 160-320 |
|---|---------|---|---------|