

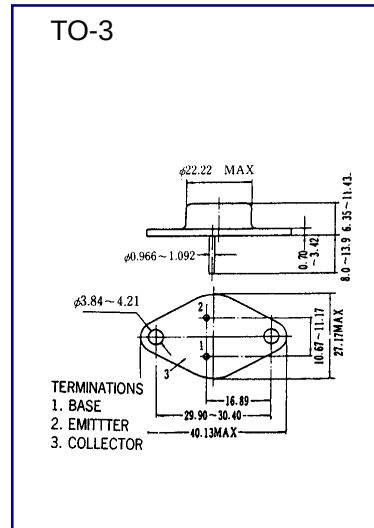


2N3771

## NPN PLANAR SILICON TRANSISTOR

### AUDIO POWER AMPLIFIER DC TO DC CONVERTER

- High Current Capability
- High Power Dissipation



### ABSOLUTE MAXIMUM RATING ( $T_a=25^{\circ}\text{C}$ )

| Characteristic            | Symbol    | Rating  | Unit               |
|---------------------------|-----------|---------|--------------------|
| Collector-Base Voltage    | $V_{CB0}$ | 50      | V                  |
| Collector-Emitter Voltage | $V_{CE0}$ | 40      | V                  |
| Emitter-Base voltage      | $V_{EB0}$ | 6       | V                  |
| Collector Current (DC)    | $I_C$     | 30      | A                  |
| Collector Dissipation     | $P_C$     | 150     | W                  |
| Junction Temperature      | $T_j$     | 150     | $^{\circ}\text{C}$ |
| Storage Temperature       | $T_{stg}$ | -50~150 | $^{\circ}\text{C}$ |

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

| Characteristic                        | Symbol        | Test Condition                        | Min | Typ | Max | Unit |
|---------------------------------------|---------------|---------------------------------------|-----|-----|-----|------|
| Collector Base Breakdown Voltage      | $BV_{CB0}$    | $I_C=10\text{ mA}$ $I_E=0$            | 40  |     |     | V    |
| Collector Emitter Breakdown Voltage   | $BV_{CE0}$    | $I_C=5\text{ mA}$ $R_{BE}=\infty$     | 40  |     |     | V    |
| Emitter Base Breakdown Voltage        | $BV_{EB0}$    | $I_E=5\text{ mA}$ $I_C=0$             | 6   |     |     | V    |
| Collector Cutoff Current              | $I_{CB0}$     | $V_{CB}=30\text{ V}$ $I_E=0$          |     |     | 0.1 | mA   |
| Emitter Cutoff Current                | $I_{EB0}$     | $V_{EB}=4\text{ V}$ $I_C=0$           |     |     | 0.1 | mA   |
| DC Current Gain                       | $h_{FE1}$     | $V_{CE}=5\text{ V}$ $I_C=10\text{ A}$ | 15  |     | 60  |      |
| Collector- Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=15\text{ A}$ $I_B=1.5\text{ A}$  |     |     | 2.0 | V    |