



2N5302

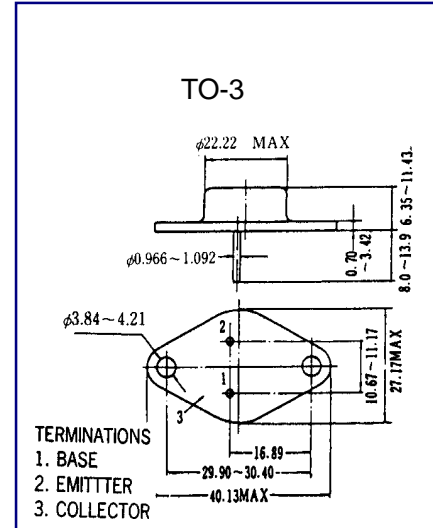
NPN PLANAR SILICON TRANSISTOR

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} | 100 | V |
| Collector-Emitter Voltage | V_{CE0} | 60 | V |
| Emitter-Base voltage | V_{EB0} | 7 | V |
| Collector Current (DC) | IC | 30 | A |
| Collector Dissipation | PC | 200 | W |
| Junction Temperature | T_j | 200 | $^\circ\text{C}$ |
| 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} | $I_C=10\text{ mA}$ $I_E=0$ | 50 | | | V |
| Collector Emitter Breakdown Voltage | BV_{CE0} | $I_C=5\text{ mA}$ $R_{BE}=\infty$ | 50 | | | V |
| Emitter Base Breakdown Voltage | BV_{EB0} | $I_E=5\text{ mA}$ $I_C=0$ | 6 | | | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=30\text{V}$ $I_E=0$ | | | 0.1 | mA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=4\text{V}$ $I_C=0$ | | | 0.1 | mA |
| DC Current Gain | hFE | $V_{CE}=5\text{V}$ $I_C=10\text{A}$ | 15 | | 60 | |
| Collector- Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=10\text{A}$ $I_B=1.0\text{A}$ | | | 1.0 | V |