



2SD1047

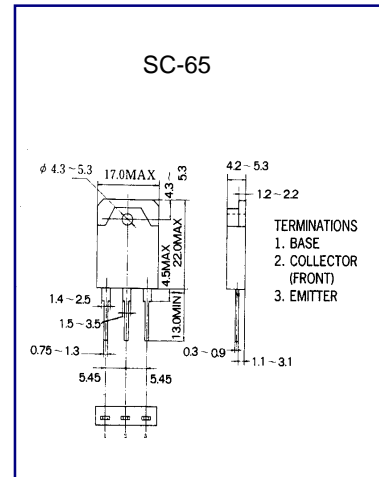
NPN PLANAR SILICON TRANSISTOR

**AUDIO POWER AMPLIFIER
DC TO DC CONVERTER**

- High Current Capability
- High Power Dissipation
- Complementary to 2SB817

ABSOLUTE MAXIMUM RATING (T_A=25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|---------|------|
| Collector-Base Voltage | V _{CB0} | 200 | V |
| Collector-Emitter Voltage | V _{CE0} | 140 | V |
| Emitter-Base voltage | V _{EBO} | 6 | V |
| Collector Current (DC) | I _C | 10 | A |
| Collector Dissipation | P _C | 100 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -55~150 | °C |



ELECTRICAL CHARACTERISTICS (T_A=25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|---------------------------------------|----------------------|--|-----|-----|-----|------|
| Collector Base Breakdown Voltage | BV _{CB0} | I _C =5 mA I _E =0 | 200 | | | V |
| Collector Emitter Breakdown Voltage | BV _{CE0} | I _C =10 mA R _{BE} =∞ | 140 | | | V |
| Emitter Base Breakdown Voltage | BV _{EBO} | I _E =5mA I _C =0 | 6 | | | V |
| Collector Cutoff Current | I _{CB0} | V _{CB} =100V I _E =0 | | | 0.1 | mA |
| Emitter Cutoff Current | I _{EBO} | V _{EB} =4V I _C =0 | | | 0.1 | mA |
| *DC Current Gain | h _{FE1} | V _{CE} =5V I _C =1A | 55 | | 160 | |
| DC Current Gain | h _{FE2} | V _{CE} =5V I _C =5A | 50 | | | |
| Collector- Emitter Saturation Voltage | V _{CE(sat)} | I _C =5A I _B =0.5A | | | 2.0 | V |