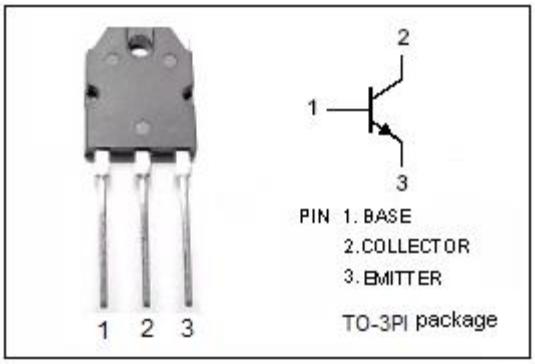
# isc Silicon NPN Power Transistor — 2SC2706

## DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 140V(Min)
- Complement to Type 2SA1146
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

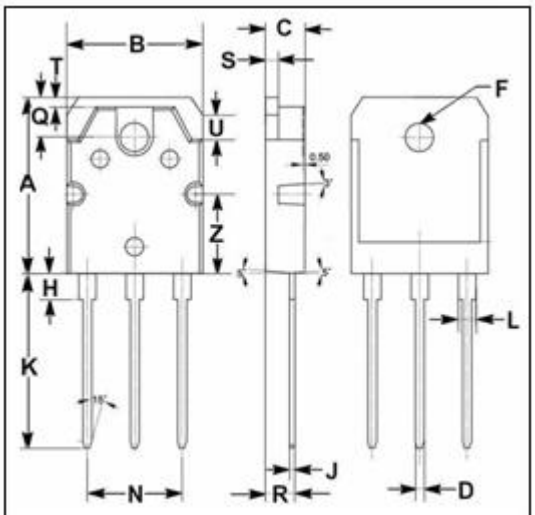



## APPLICATIONS

- Audio frequency low power amplifier applications
- Recommend for 70W audio frequency amplifier output stage applications

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 140 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 140 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 5 | V |
| $I_C$ | Collector Current-Continuous | 10 | A |
| $I_B$ | Base Current-Continuous | 1 | A |
| $P_C$ | Collector Power Dissipation @ $T_C$=25℃ | 100 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 19.90 | 20.10 |
| B | 15.50 | 15.70 |
| C | 4.40 | 4.60 |
| D | 0.90 | 1.10 |
| F | 3.20 | 3.40 |
| H | 2.90 | 3.10 |
| J | 0.50 | 0.70 |
| K | 19.90 | 20.10 |
| L | 1.90 | 2.10 |
| N | 10.80 | 11.00 |
| Q | 4.40 | 4.60 |
| R | 3.30 | 3.35 |
| S | 1.40 | 1.60 |
| T | 1.00 | 1.20 |
| U | 2.10 | 2.30 |
| Z | 8.90 | 9.10 |

# isc Silicon NPN Power Transistor 2SC2706

## ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C$= 50mA; $I_B$= 0 | 140 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= 5A; $I_B$= 0.5A | | | 2.0 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C$= 5A; $V_{CE}$= 5V | | | 2.5 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= 140V; $I_E$=0 | | | 50 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= 5V; $I_C$=0 | | | 50 | μA |
| $h_{FE-1}$ | DC Current Gain | $I_C$= 1A; $V_{CE}$= 5V | 55 | | 240 | |
| $h_{FE-2}$ | DC Current Gain | $I_C$= 5A; $V_{CE}$= 5V | 30 | | | |
| $C_{OB}$ | Output Capacitance | $I_E$= 0; $V_{CB}$= 10V; $f_{test}$= 1.0MHz | | 130 | | pF |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= 1A; $V_{CE}$= 10V | 25 | | | MHz |

◆ **$h_{FE-1}$ Classifications**

| R | O | Y |
|---|---|---|
| 55-110 | 80-160 | 120-240 |