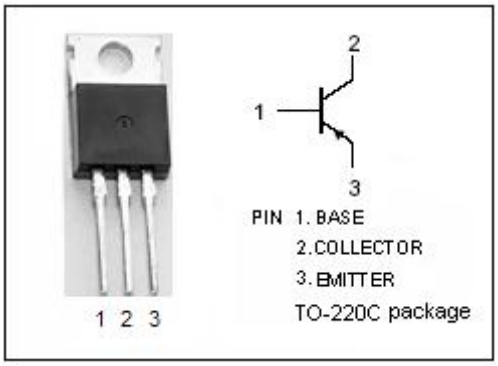
# SPTECH Silicon PNP Power Transistor

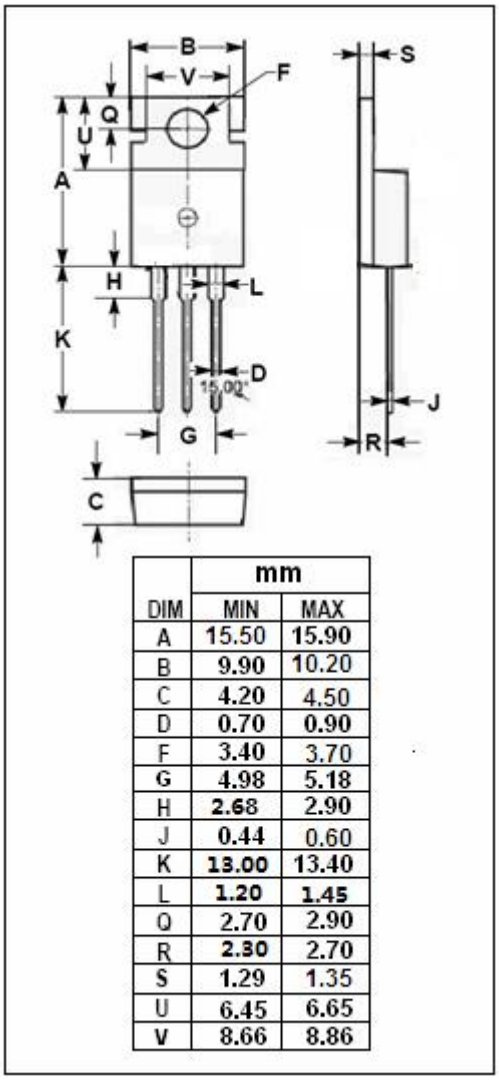



## DESCRIPTION

- DC Current Gain -
  : $h_{FE}$ = 30(Min.)@ $I_C$= -2A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= -60V(Min.)
- Complement to Type BD303

## APPLICATIONS

- Designed for audio output stages up to 25W, vertical deflection circuits in color TV receivers.




| DIM | mm MIN | MAX |
|---|---|---|
| A | 15.50 | 15.90 |
| B | 9.90 | 10.20 |
| C | 4.20 | 4.50 |
| D | 0.70 | 0.90 |
| F | 3.40 | 3.70 |
| G | 4.98 | 5.18 |
| H | 2.68 | 2.90 |
| J | 0.44 | 0.60 |
| K | 13.00 | 13.40 |
| L | 1.20 | 1.45 |
| Q | 2.70 | 2.90 |
| R | 2.30 | 2.70 |
| S | 1.29 | 1.35 |
| U | 6.45 | 6.65 |
| V | 8.66 | 8.86 |

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -60 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -60 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current-Continuous | -8 | A |
| $I_{CM}$ | Collector Current-Peak | -12 | A |
| $I_B$ | Base Current-Continuous | -2 | A |
| $P_C$ | Collector Power Dissipation @ $T_C$=25℃ | 55 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -65~150 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance, Junction to Case | 2.3 | ℃/W |

# SPTECH Silicon PNP Power Transistor

## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C$= -30mA; $I_B$= 0 | -60 | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= -3A; $I_B$= -0.3A | | -1.0 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C$= -3A; $I_B$= -0.3A | | -1.5 | V |
| $I_{CEO}$ | Collector Cutoff Current | $V_{CE}$= -30V; $I_B$= 0 | | -1.0 | mA |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -40V; $I_E$= 0; $T_C$= 150℃ | | -1.0 | mA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= -5V; $I_C$= 0 | | -5.0 | mA |
| $h_{FE}$ | DC Current Gain | $I_C$= -2A; $V_{CE}$= -2V | 30 | | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= -0.3A; $V_{CE}$= -3V | 3 | | MHz |