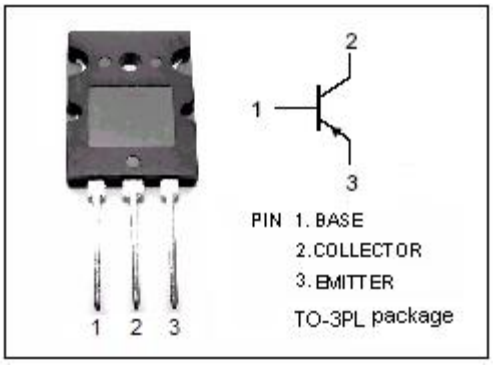
# SPTECH Silicon PNP Power Transistor

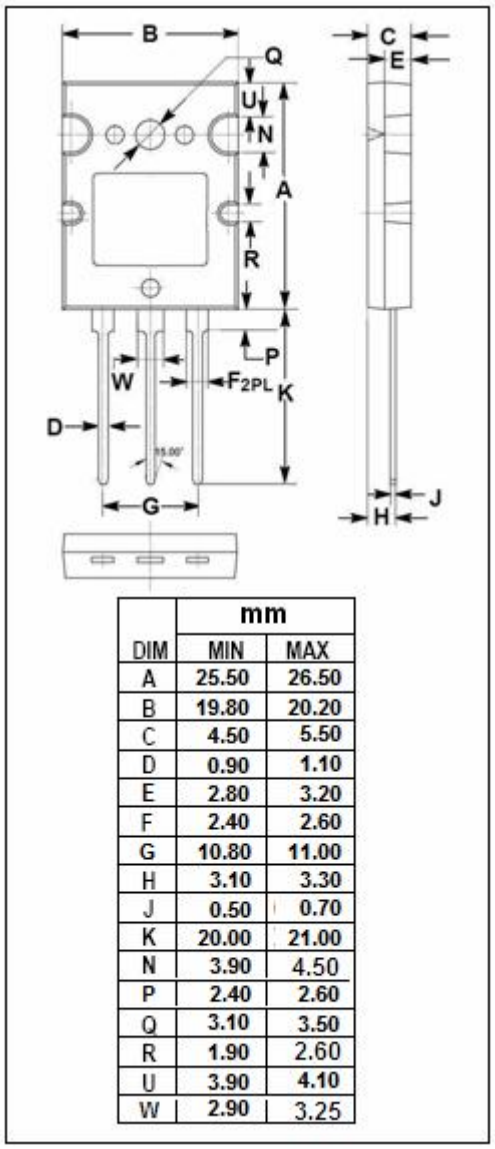



## DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= -160V(Min)
- Complement to Type 2SC5199

## APPLICATIONS

- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage applications




| DIM | mm MIN | MAX |
|---|---|---|
| A | 25.50 | 26.50 |
| B | 19.80 | 20.20 |
| C | 4.50 | 5.50 |
| D | 0.90 | 1.10 |
| E | 2.80 | 3.20 |
| F | 2.40 | 2.60 |
| G | 10.80 | 11.00 |
| H | 3.10 | 3.30 |
| J | 0.50 | 0.70 |
| K | 20.00 | 21.00 |
| N | 3.90 | 4.50 |
| P | 2.40 | 2.60 |
| Q | 3.10 | 3.50 |
| R | 1.90 | 2.60 |
| U | 3.90 | 4.10 |
| W | 2.90 | 3.25 |

## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -160 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -160 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current-Continuous | -12 | A |
| $I_B$ | Base Current-Continuous | -1.2 | A |
| $P_C$ | Collector Power Dissipation @ $T_C$=25℃ | 120 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

# SPTECH Silicon PNP Power Transistor

## 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 | -160 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= -8.0A; $I_B$= -0.8A | | | -2.5 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C$= -6A; $V_{CE}$= -5V | | | -1.5 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -160V; $I_E$= 0 | | | -5 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= -5V; $I_C$= 0 | | | -5 | μA |
| $h_{FE-1}$ | DC Current Gain | $I_C$= -1A; $V_{CE}$= -5V | 55 | | 160 | |
| $h_{FE-2}$ | DC Current Gain | $I_C$= -6A; $V_{CE}$= -5V | 35 | | | |
| $C_{OB}$ | Output Capacitance | $I_E$=0; $V_{CB}$= -10V; f= 1.0MHz | | 320 | | pF |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$=-1A ; $V_{CE}$= -5V | | 30 | | MHz |

◆ **$h_{FE-1}$ Classifications**

| R | O |
|---|---|
| 55-110 | 80-160 |