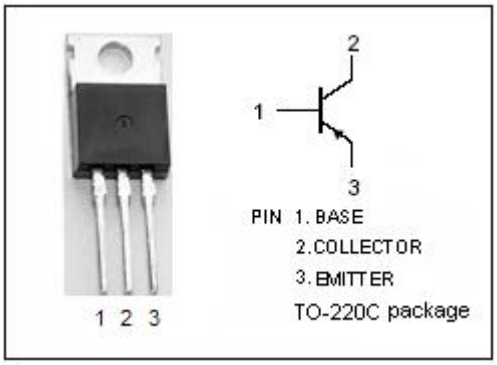
# isc Silicon PNP Power Transistor 2N6126

## DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CE(sat)}$ = -0.6V(Max.)@ $I_C$= -1.5A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -80V(Min)
- Complement to Type 2N6123
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

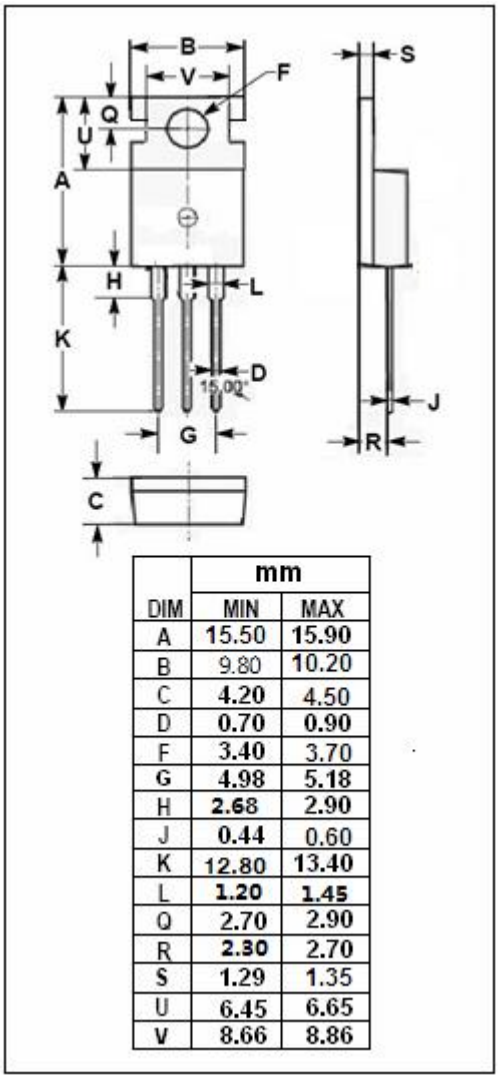



## APPLICATIONS

- Designed for use in power amplifier and switching circuits applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -80 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -80 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current-Continuous | -4 | A |
| $I_{CM}$ | Collector Current-Peak | -8 | A |
| $I_B$ | Base Current | -1 | A |
| $P_C$ | Collector Power Dissipation @ $T_C$=25℃ | 40 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -65~150 | ℃ |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 15.50 | 15.90 |
| B | 9.80 | 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 | 12.80 | 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 |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance, Junction to Case | 3.125 | ℃/W |

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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C$= -50mA; $I_B$= 0 | -80 | | V |
| $V_{CE(sat)-1}$ | Collector-Emitter Saturation Voltage | $I_C$= -1.5A; $I_B$= -0.15A | | -0.6 | V |
| $V_{CE(sat)-2}$ | Collector-Emitter Saturation Voltage | $I_C$= -4A; $I_B$= -1.0A | | -1.4 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C$= -1.5A; $V_{CE}$= -2V | | -1.2 | V |
| $I_{CEX}$ | Collector Cutoff Current | $V_{CE}$= -80V; $V_{BE(off)}$= -1.5V<br>$V_{CE}$= -80V; $V_{BE(off)}$= -1.5V;$T_C$= 150℃ | | -0.1<br>-2.0 | mA |
| $I_{CEO}$ | Collector Cutoff Current | $V_{CE}$= -80V; $I_B$= 0 | | -1.0 | mA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= -5V; $I_C$= 0 | | -1.0 | mA |
| $h_{FE-1}$ | DC Current Gain | $I_C$= -1.5A; $V_{CE}$= -2V | 20 | 80 | |
| $h_{FE-2}$ | DC Current Gain | $I_C$= -4A; $V_{CE}$= -2V | 7 | | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= -1.0A; $V_{CE}$= -4V, $f_{test}$= 1.0MHz | 2.5 | | MHz |