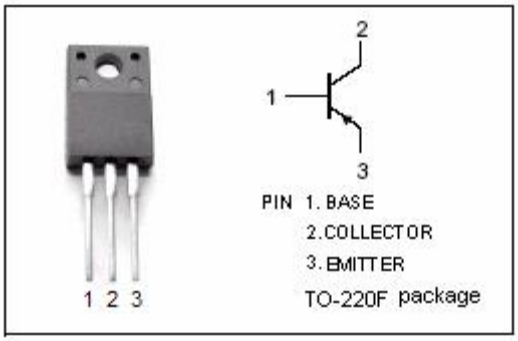
# isc Silicon PNP Power Transistor 2SA2050




## DESCRIPTION

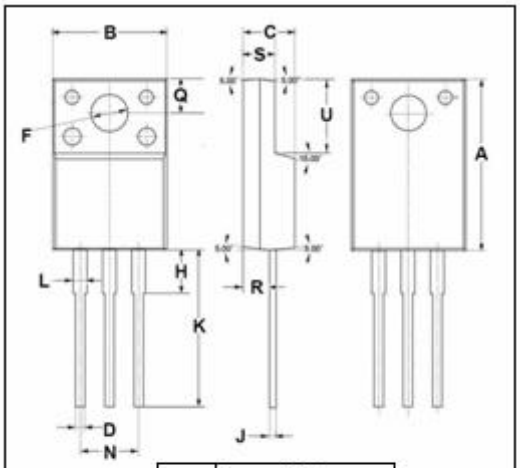
- High DC current amplifier rate
  $h_{FE}$:60-240@VCE=-5V,IC=-0.2A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- General Purpose Switching and Amplification

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -180 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -160 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -6 | V |
| $I_C$ | Collector Current-Continuous | -1.5 | A |
| $P_C$ | Total Power Dissipation @ Ta=25℃ | 1.5 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 14.95 | 15.05 |
| B | 10.00 | 10.10 |
| C | 4.40 | 4.60 |
| D | 0.75 | 0.90 |
| F | 3.10 | 3.30 |
| H | 3.70 | 3.90 |
| J | 0.50 | 0.70 |
| K | 13.4 | 13.6 |
| L | 1.10 | 1.30 |
| N | 5.00 | 5.20 |
| Q | 2.70 | 2.90 |
| R | 2.20 | 2.40 |
| S | 2.65 | 2.90 |
| U | 6.40 | 6.60 |

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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= -500mA; $I_B$= -50mA | | | -1.0 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -60V; $I_E$= 0 | | | -10 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$=-6V; $I_C$=0 | | | -10 | μA |
| $h_{FE1}$ | DC Current Gain | $I_C$= -0.2A; $V_{CE}$= -5V | 60 | | 240 | |
| $h_{FE2}$ | DC Current Gain | $I_C$= -1.5A; $V_{CE}$= -5V | 50 | | | |
| fT | Transition frequency | $V_{CE}$= -10V ,$I_C$= -0.05A | 50 | | | MHz |