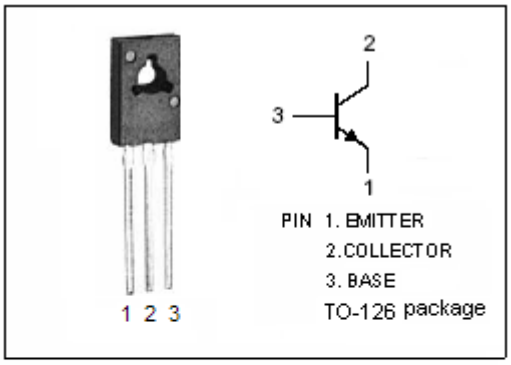
# isc Silicon NPN Power Transistor 2SD879

## DESCRIPTION

- High Collector Current-$I_C$= 3.0A
- Low Saturation Voltage -
  : $V_{CE(sat)}$= 0.4V(Max)@ $I_C$= 3.0A, $I_B$= 60mA（Pulse）
- Excellent Linearity of $h_{FE}$ in The Region From Low Current to High Current.

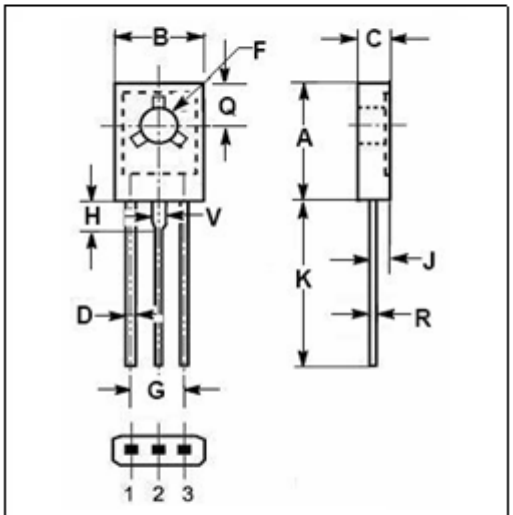



## APPLICATIONS

- In applications where two NiCd batteries are used to provide 2.4V, two 2SD879s are used.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 30 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 10 | V |
| $V_{CEX}$ | Collector-Emitter Voltage | 20 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 6 | V |
| $I_C$ | Collector Current-Continuous | 3.0 | A |
| $I_{CP}$ | Collector Current-Pulse | 5.0 | A |
| $P_C$ | Collector Power Dissipation | 1.0 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 10.70 | 10.90 |
| B | 7.70 | 7.90 |
| C | 2.60 | 2.80 |
| D | 0.66 | 0.86 |
| F | 3.10 | 3.30 |
| G | 4.48 | 4.68 |
| H | 2.00 | 2.20 |
| J | 1.35 | 1.55 |
| K | 16.10 | 16.30 |
| Q | 3.70 | 3.90 |
| R | 0.40 | 0.60 |
| V | 1.17 | 1.37 |

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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | $I_C$=10μA, $I_E$=0 | 30 | | | V |
| $V_{CEO}$ | Collector-Emitter Voltage | $I_C$=1mA, $R_{BE}$=∞ | 10 | | | V |
| $V_{CEX}$ | Collector-Emitter Voltage | $I_C$=1mA, $V_{BE}$=3V | 20 | | | V |
| $V_{EBO}$ | Emitter-Base Voltage | $I_E$=10μA, $I_C$=0 | 6 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= 3.0A; $I_B$= 60mA(pulse) | | | 0.4 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= 20V; $I_E$= 0 | | | 1.0 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= 4V; $I_C$= 0 | | | 1.0 | μA |
| $h_{FE}$ | DC Current Gain | $I_C$= 3A(pulse) ; $V_{CE}$= 2V | 140 | | | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= 0.05A ; $V_{CE}$= 10V | | 200 | | MHz |
| $C_{OB}$ | Output Capacitance | $I_E$= 0 ; $V_{CB}$= 10V,$f_{test}$= 1MHz | | 30 | | pF |