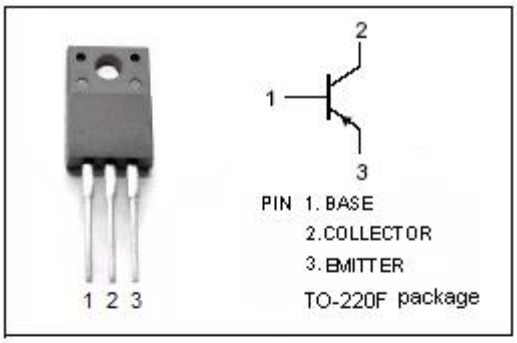
# isc Silicon PNP Power Transistor 2SA1470

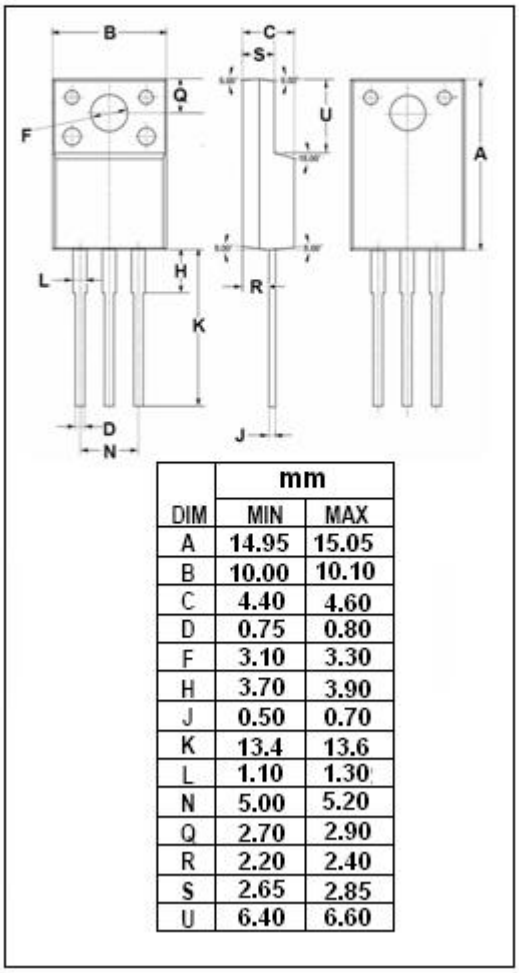
## DESCRIPTION

- DC Current Gain-
  : $h_{FE}$= 70(Min)@ ($V_{CE}$= -2V, $I_C$= -1A)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= −0.4V(Max)@ ($I_C$= -3.5A, $I_B$= -0.175A)
- Fast Switching Time
- Complement to Type 2SC3747
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




## APPLICATIONS

- Various inductance lamp drivers for electrical equipment
- Inverters, converters (strobo, flash, fluorescent lamp lighting circuit).
- Power amp(high power car stereo, motor controller).
- High-speed switching (switching regulator, driver).




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 14.95 | 15.05 |
| B | 10.00 | 10.10 |
| C | 4.40 | 4.60 |
| D | 0.75 | 0.80 |
| 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 | 2.85 |
| U | 6.40 | 6.60 |

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -80 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -60 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current-Continuous | -7 | A |
| $I_{CM}$ | Collector Current-Peak | -10 | A |
| $P_C$ | Collector Power Dissipation @$T_a$=25℃ | 2 | W |
| | Collector Power Dissipation @$T_C$=25℃ | 25 | |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55~150 | ℃ |

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## ELECTRICAL CHARACTERISTICS

**Tj=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C$= -1mA; $R_{BE}$= ∞ | -60 | | | V |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C$= -1mA ; $I_E$= 0 | -80 | | | V |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E$= -1mA ; $I_C$= 0 | -5 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= -3.5A; $I_B$= -0.175A | | | -0.4 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -40V; $I_E$= 0 | | | -100 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= -4V; $I_C$= 0 | | | -100 | μA |
| $h_{FE}$ | DC Current Gain | $I_C$= -1A; $V_{CE}$= -2V | 70 | | 280 | |

◆ **$h_{FE}$ Classifications**

| Q | R | S |
|---|---|---|
| 70-140 | 100-200 | 140-280 |

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