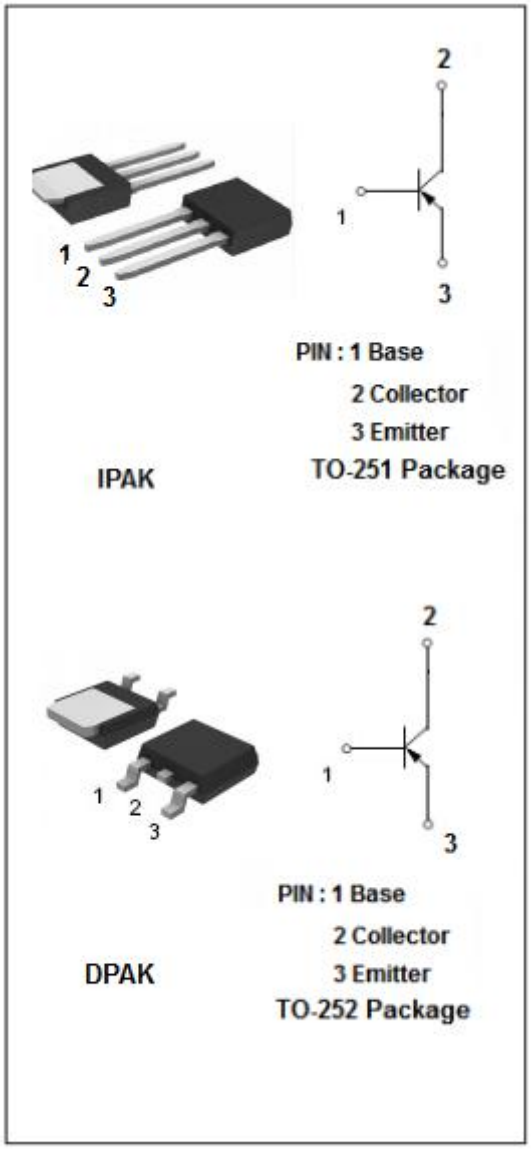
# isc Silicon PNP Power Transistor KSH42C

## DESCRIPTION

- Lead formed for surface mount applications(NO suffix)
- Straight lead(IPAK, "－I" suffix)
- Electrically similar to popular TIP42C
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- General purpose amplifier
- Low speed switching applications




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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -100 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -100 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current-Continuous | -6 | A |
| $P_C$ | Total Power Dissipation @ Ta=25℃ | 1.75 | W |
| $P_C$ | Total Power Dissipation @ $T_C$=25℃ | 20 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$* | Collector-Emitter Breakdown Voltage | $I_C$= -30mA; $I_B$= 0 | -100 | | | V |
| $V_{CE(sat)}$* | Collector-Emitter Saturation Voltage | $I_C$=- 6A; $I_B$=- 600mA | | | -1.5 | V |
| $V_{BE(on)}$* | Base-Emitter On Voltage | $I_C$=- 6A; $V_{CE}$=-4V | | | -2.0 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -100V; $I_E$= 0 | | | -10 | uA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$=- 5V; $I_C$= 0 | | | -0.5 | mA |
| $h_{FE1}$* | DC Current Gain | $I_C$=- 0.3A; $V_{CE}$= -4V | 30 | | | |
| $h_{FE2}$* | DC Current Gain | $I_C$= -3A; $V_{CE}$= -4V | 15 | | 75 | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= -0.5A; $V_{CE}$= -10V | 3 | | | MHz |

*:Pulse test PW≤300us,duty cycle≤2%

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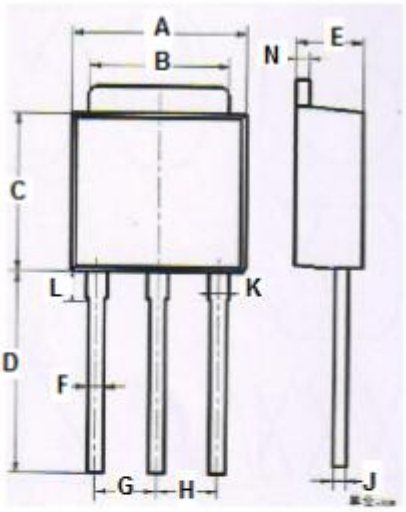
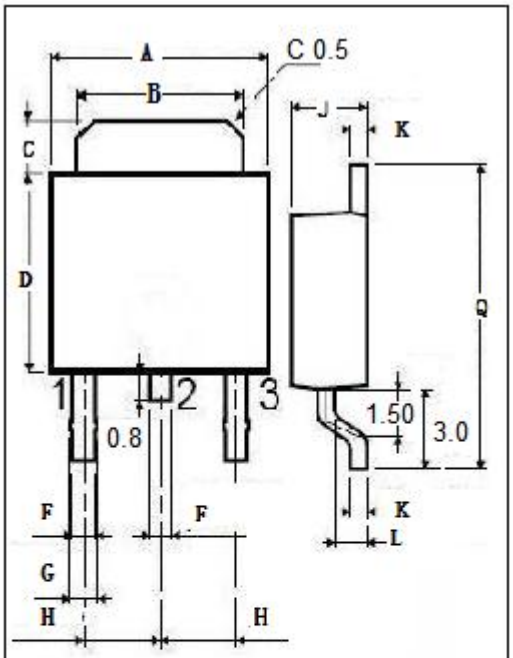
**Outline Drawing**




| DIM | mm MIN | MAX |
|---|---|---|
| A | 6.40 | 6.48 |
| B | 5.10 | 5.50 |
| C | 5.80 | 6.20 |
| D | 9.20 | 9.60 |
| E | 2.20 | 2.40 |
| F | 0.50 | 0.70 |
| G | 2.09 | 2.49 |
| H | 2.09 | 2.49 |
| J | 0.40 | 0.60 |
| K | 0.70 | 0.90 |
| L | 1.60 | 2.00 |
| N | 0.40 | 0.60 |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 6.40 | 6.60 |
| B | 5.20 | 5.40 |
| C | 1.15 | 1.35 |
| D | 5.70 | 6.10 |
| F | 0.65 | |
| G | 0.75 | |
| H | 2.10 | 2.50 |
| J | 2.10 | 2.40 |
| K | 0.40 | 0.60 |
| L | 0.90 | 1.10 |
| Q | 9.90 | 10.1 |