

isc Silicon NPN Power Transistor
2SC4131
DESCRIPTION

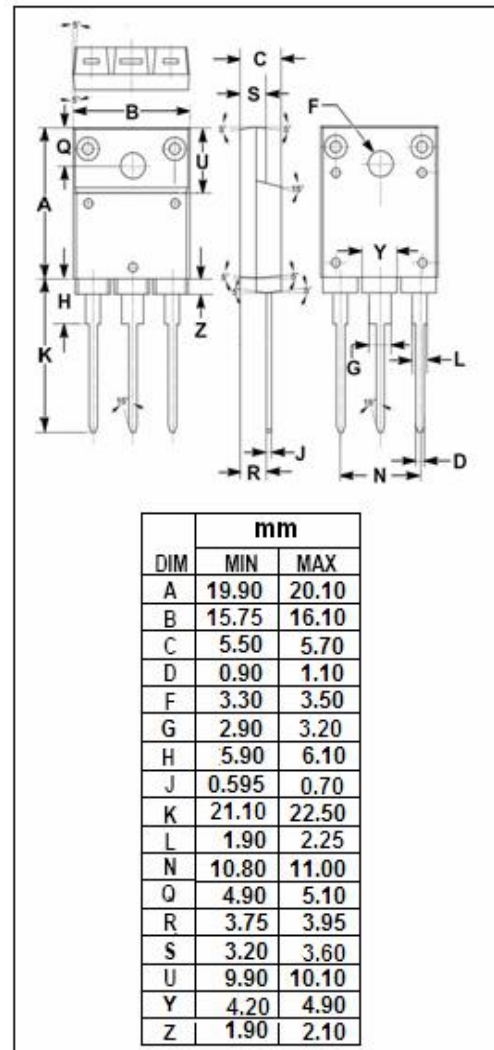
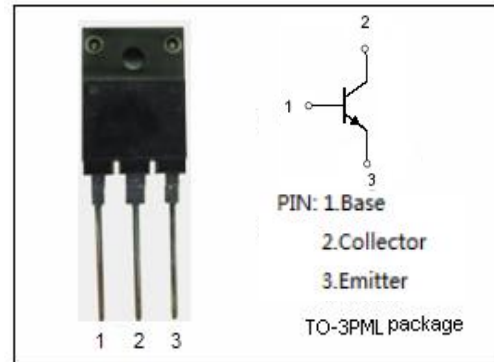
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.5V(\text{Max}) @ I_C = 5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for DC-DC converter, emergency lighting inverter and general purpose applications

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 100 | V |
| V_{CEO} | Collector-Emitter Voltage | 50 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 15 | A |
| I_{CP} | Collector Current-Peak | 25 | A |
| I_B | Base Current-Continuous | 4 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ\text{C}$ | 60 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Power Transistor**2SC4131****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = 25mA; I _B = 0 | 50 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 5A; I _B = 80mA | | | 0.5 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 5A; I _B = 80mA | | | 1.2 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 100V ; I _E = 0 | | | 10 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 5V ; I _C = 0 | | | 10 | μ A |
| h _{FE} | DC current gain | I _C = 5A ; V _{CE} = 1V | 60 | | 360 | |

NOTICE:

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