

isc Silicon NPN Darlington Power Transistor

BU180A

DESCRIPTION

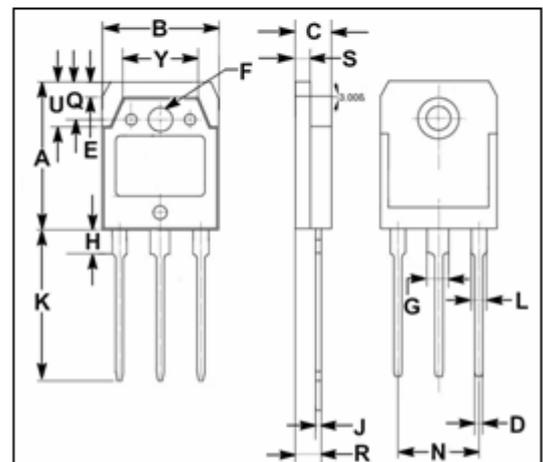
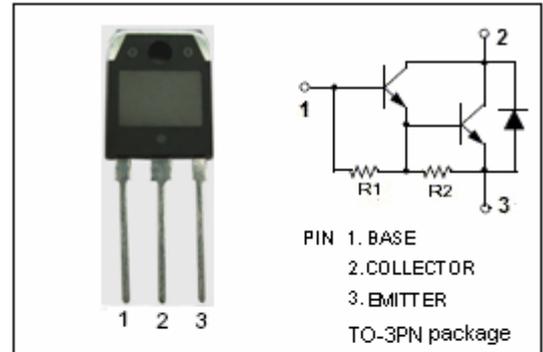
- Collector Current $I_C = 10A$
- DC Current Gain-
: $h_{FE} = 200(\text{Min}) @ I_C = 5A$
- Low Collector Saturation Voltage

APPLICATIONS

- Designed for line operated switchmode applications such as:
- Switching regulators
- Inverters
- Solenoid and relay drivers

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------|
| V_{CBO} | Collector-Base Voltage | 400 | V |
| V_{CEO} | Collector-Emitter Voltage | 200 | V |
| V_{EBO} | Emitter-Base Voltage | 8 | V |
| I_C | Collector Current-Continuous | 10 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ C$ | 50 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ C$ |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 19.90 | 20.10 |
| B | 15.50 | 15.70 |
| C | 4.70 | 4.90 |
| D | 0.90 | 1.10 |
| E | 1.90 | 2.10 |
| F | 3.40 | 3.60 |
| G | 2.90 | 3.10 |
| H | 3.20 | 3.40 |
| J | 0.595 | 0.605 |
| K | 20.50 | 20.70 |
| L | 1.90 | 2.10 |
| N | 10.89 | 10.91 |
| Q | 4.90 | 5.10 |
| R | 3.35 | 3.45 |
| S | 1.995 | 2.005 |
| U | 5.90 | 6.10 |
| Y | 9.90 | 10.10 |

isc Silicon NPN Darlington Power Transistor**BU180A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------|--------------------------------------|-----------------------------------|-----|------|-----|------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C=100\text{mA}; I_B=0$ | 200 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=4\text{A}; I_B=20\text{mA}$ | | | 1.5 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C=4\text{A}; I_B=20\text{mA}$ | | | 2.0 | V |
| I_{CEO} | Collector Cutoff Current | $V_{CE}=200\text{V}; I_B=0$ | | | 1.0 | mA |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=400\text{V}; I_E=0$ | | | 1.0 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=8\text{V}; I_C=0$ | | | 10 | mA |
| h_{FE} | DC Current Gain | $I_C=5\text{A}; V_{CE}=5\text{V}$ | 200 | | | |