

isc Silicon NPN Power Transistor

BD179

DESCRIPTION

- DC Current Gain-
 - : h_{FE}= 40-250(Min)@ I_C= 0.15A
- Collector-Emitter Sustaining Voltage -
- : V_{CEO(SUS)}= 80V(Min)
- Complement to type BD180
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

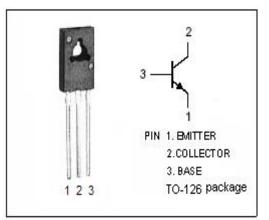
Designed for medium power linear and switching applications.

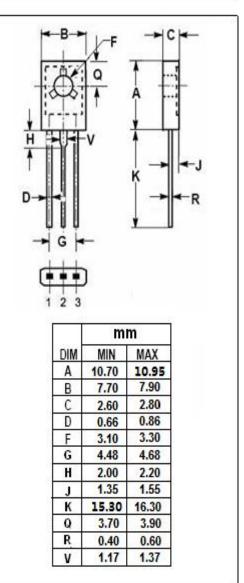
ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|-------|------|
| V _{CBO} | Collector-Base Voltage | 80 | v |
| V _{CEO} | Collector-Emitter Voltage | 80 | V |
| V _{EBO} | Emitter-Base Voltage | 5 | V |
| lc | Collector Current-Continuous | 3 | А |
| I _{CM} | Collector Current-Pulse | 7 | А |
| Pc | Collector Power Dissipation @ $T_C=25^{\circ}C$ | 30 | W |
| TJ | Junction Temperature | 150 | °C |
| T _{stg} | T _{stg} Storage Temperature Range | | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | МАХ | UNIT |
|---------------------|---|-----|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 8.5 | °C/W |
| R _{th j-a} | R _{th j-a} Thermal Resistance, Junction to Ambient | | °C/W |





isc website: www.iscsemi.com



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ELECTRICAL CHARACTERISTICS

$T_{c}\text{=}25^{\circ}\!\!\!\mathrm{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | мах | UNIT |
|-----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{CEO(SUS)} | Collector-Emitter Sustaining Voltage | I _C = 50mA ; I _B = 0 | 80 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 1A; I _B = 0.1A | | | 0.8 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = 1A; V _{CE} = 2V | | | 1.3 | V |
| І _{сво} | Collector Cutoff Current | V _{CB} = 80V; I _E = 0 | | | 100 | μ Α |
| Іево | Emitter Cutoff Current | V _{EB} = 5V; I _C = 0 | | | 1 | mA |
| h _{FE-1} | DC Current Gain | I _C = 150mA; V _{CE} = 2V | 40 | | 250 | |
| h _{FE-2} | DC Current Gain | I _C = 1A; V _{CE} = 2V | 15 | | | |
| f⊤ | Current-Gain—Bandwidth Product | I _C = 0.25A; V _{CE} = 10V | 3 | | | MHz |

h_{FE-1} Classifications

| 6 | 10 | 16 |
|--------|--------|---------|
| 40-100 | 63-160 | 100-250 |

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