

# **isc Silicon NPN Power Transistor**

# **BD179**

### DESCRIPTION

- DC Current Gain-
  - : h<sub>FE</sub>= 40-250(Min)@ I<sub>C</sub>= 0.15A
- Collector-Emitter Sustaining Voltage -
- : V<sub>CEO(SUS)</sub>= 80V(Min)
- Complement to type BD180
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### **APPLICATIONS**

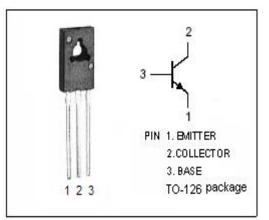
Designed for medium power linear and switching applications.

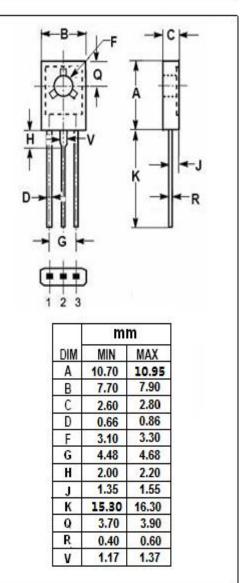
### ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

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

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	8.5	°C/W
R <sub>th j-a</sub>	R <sub>th j-a</sub> 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 <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	80			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 0.1A			0.8	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 1A; V <sub>CE</sub> = 2V			1.3	V
І <sub>сво</sub>	Collector Cutoff Current	V <sub>CB</sub> = 80V; I <sub>E</sub> = 0			100	μ Α
Іево	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 150mA; V <sub>CE</sub> = 2V	40		250	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 2V	15			
f⊤	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.25A; V <sub>CE</sub> = 10V	3			MHz

### h<sub>FE-1</sub> Classifications

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

### **NOTICE:**

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