

isc Silicon NPN Power Transistor

BD801

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 100V(\text{Min})$
- Low Saturation Voltage
- Complement to Type BD802
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

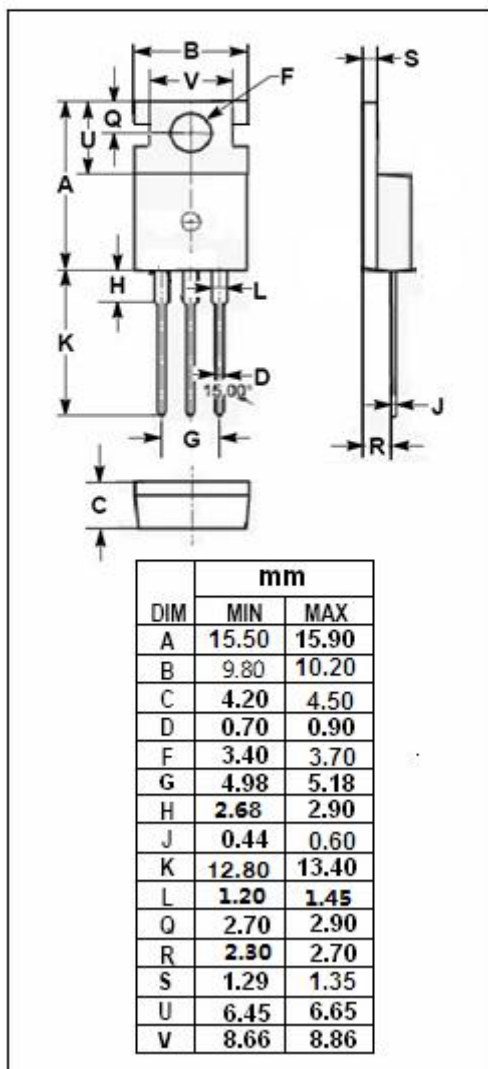
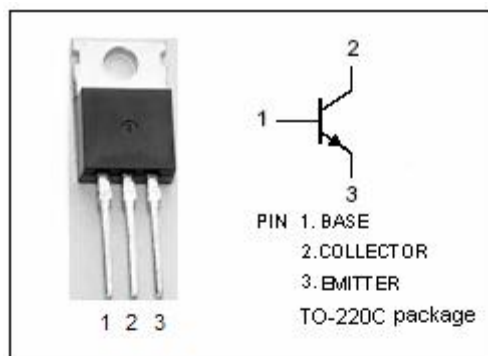
- Designed for a wide variety of medium-power switching and amplifier applications , such as series and shunt regulators and driver and output stages of high-fidelity amplifiers.

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	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation $T_C=25^\circ\text{C}$	65	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.92	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**BD801****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	100			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.3A			1	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 3A ; V _{CE} = 2V			1.6	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1	mA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 2V	30			
h _{FE-2}	DC Current Gain	I _C = 3A ; V _{CE} = 2V	15			
f _T	Current-Gain—Bandwidth Product	I _C = 0.25A ; V _{CE} = 10V, f _{test} = 1MHz	3			MHz

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