

SPTECH Silicon PNP Power Transistor

BD802

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -100V(\text{Min})$
- Low Saturation Voltage
- Complement to Type BD801

APPLICATIONS

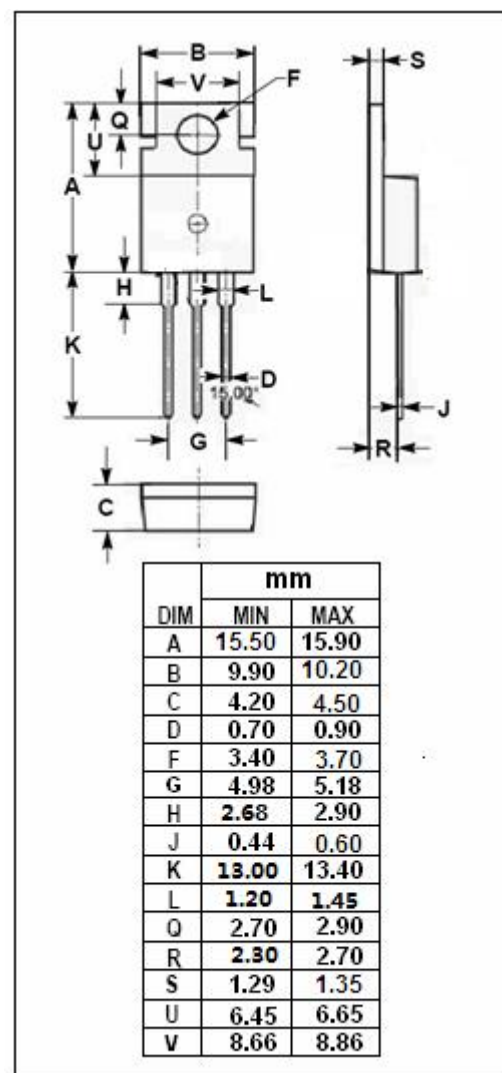
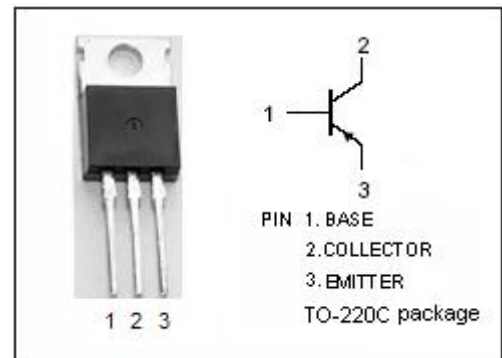
- Designed for a wide variety of medium-power switching and amplifier applications , such as series and shunt regulators and driver and output stages of high-fidelity amplifiers.

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	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}$; $I_B = -0.3\text{A}$			-1	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -3\text{A}$; $V_{CE} = -2\text{V}$			-1.6	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$			-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-1	mA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -2\text{V}$	30			
h_{FE-2}	DC Current Gain	$I_C = -3\text{A}$; $V_{CE} = -2\text{V}$	15			
f_T	Current-Gain—Bandwidth Product	$I_C = -0.25\text{A}$; $V_{CE} = -10\text{V}$, $f_{test} = 1\text{MHz}$	3			MHz