

isc Silicon PNP Power Transistor
BD830
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -100V(\text{Min})$
- High DC Current Gain
- Low Saturation Voltage
- Complement to Type BD829
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

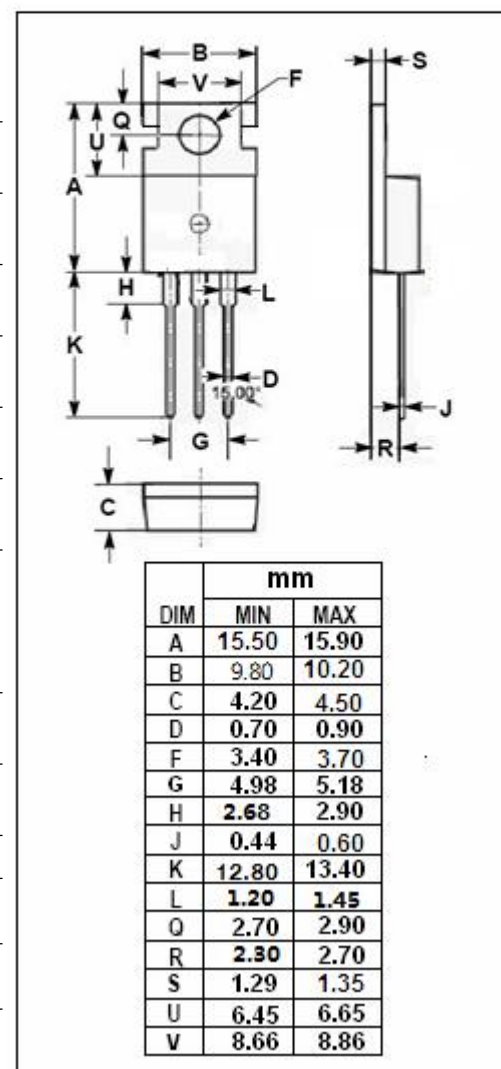
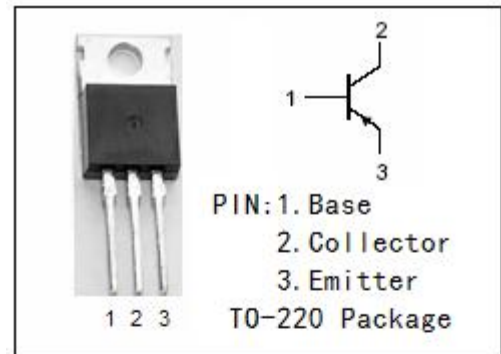
- Designed for driver-stages in hi-fi amplifiers and television circuits.

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	-1.0	A
I_{CP}	Collector Current-Peak	-1.5	A
P_c	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	10	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	12.5	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Breakdown Voltage	I _C = -30mA; I _B = 0	-100			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =- 500mA; I _B = -50mA			-0.5	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -0.5A ; V _{CE} = -2V			-1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -30V; I _E = 0			-0.1	uA
		V _{CB} =-30V; I _E = 0; T _C = 125°C			-10	
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-10	uA
h _{FE-1}	DC Current Gain	I _C = -5mA ; V _{CE} = -2V	25			
h _{FE-2}	DC Current Gain	I _C = -150mA ; V _{CE} = -2V	40		250	
h _{FE-3}	DC Current Gain	I _C = -500mA ; V _{CE} =- 2V	25			
f _T	Current-Gain—Bandwidth Product	I _C = -50mA ; V _{CE} =- 5V		75		MHz

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