

isc Silicon PNP Power Transistor

BD330

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 85\sim 375(\text{Min}) @ I_C = -0.5A$
- Collector-Emitter Sustaining Voltage -
: $V_{CEO(SUS)} = -20V(\text{Min})$
- Complement to type BD329

APPLICATIONS

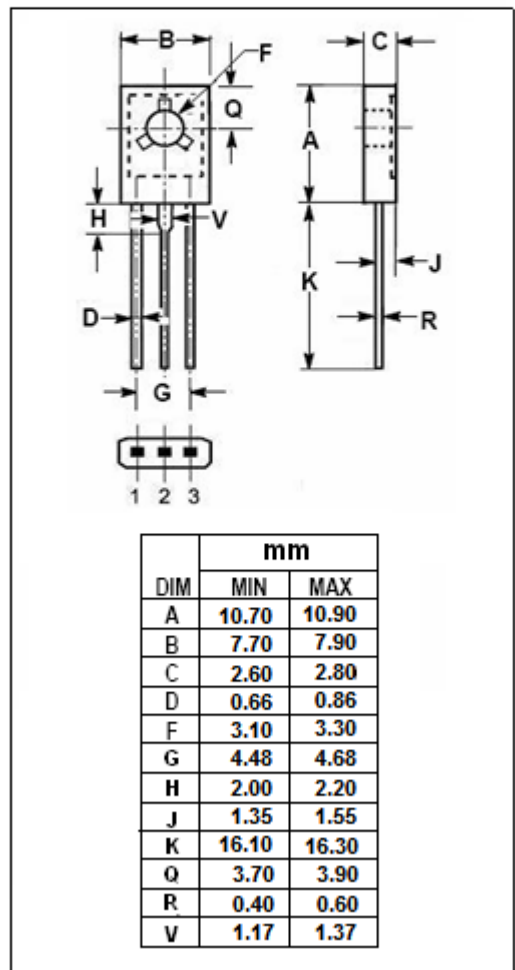
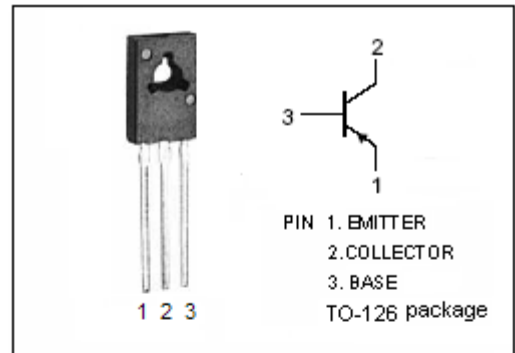
- Especially for battery equipped applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-3	A
I_{BM}	Base Current-Peak	-1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	15	W
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	7	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	100	$^\circ\text{C/W}$



isc Silicon PNP Power Transistor**BD330****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}; I_B = 0$	-20			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}; I_B = -0.2\text{A}$			-0.5	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	$I_C = -5\text{mA}; V_{CE} = -10\text{V}$		-0.6		V
$V_{BE(on)-2}$	Base-Emitter On Voltage	$I_C = -2\text{A}; V_{CE} = -1\text{V}$			-1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -32\text{V}; I_E = 0$ $V_{CB} = -32\text{V}; I_E = 0, T_C = 150^{\circ}\text{C}$			-0.1 -10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-0.1	μA
h_{FE-1}	DC Current Gain	$I_C = -5\text{mA}; V_{CE} = -10\text{V}$	50			
h_{FE-2}	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -1\text{V}$	85		375	
h_{FE-3}	DC Current Gain	$I_C = -2\text{A}; V_{CE} = -1\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_C = -50\text{mA}; V_{CE} = -5\text{V}; f_{test} = 100\text{MHz}$		100		MHz