

isc Silicon NPN Power Transistor

BDX73

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80V(\text{Min})$

APPLICATIONS

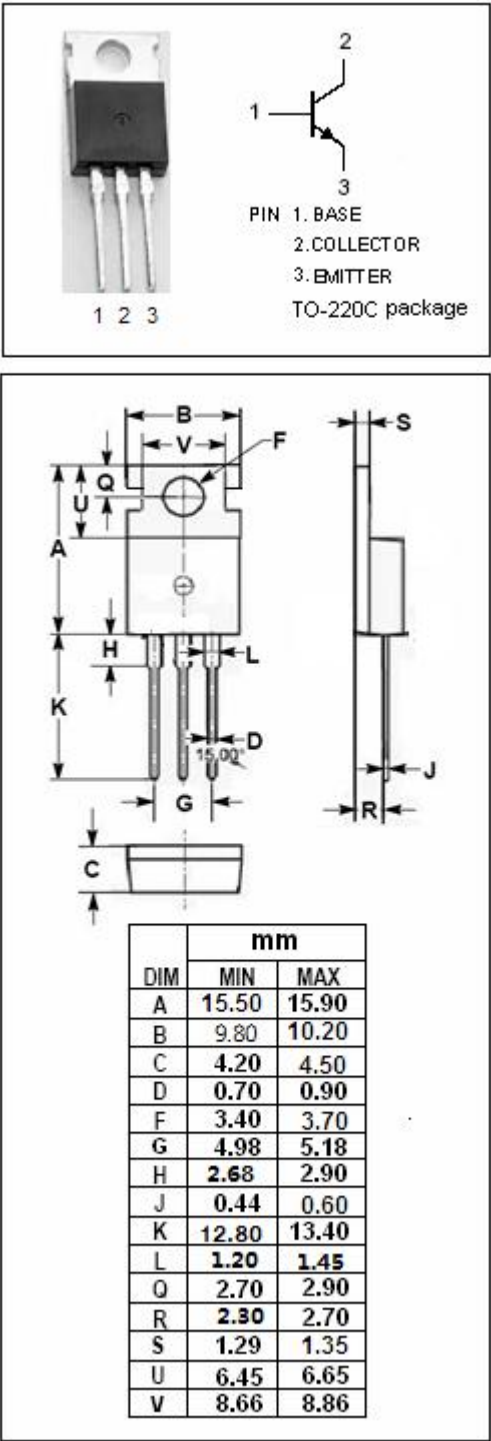
- Designed for use in power linear and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	75	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	1.67	$^{\circ}\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	70	$^{\circ}\text{C/W}$



isc Silicon NPN Power Transistor**BDX73****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 30\text{mA}$; $I_B = 0$	80		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}$; $I_E = 0$	80		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}$; $I_C = 0$	8		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4\text{A}$; $I_B = 0.4\text{A}$		1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 4\text{A}$; $V_{CE} = 2\text{V}$		2.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 80\text{V}$; $I_B = 0$		0.1	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = 80\text{V}$; $I_E = 0$		0.01	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 8\text{V}$; $I_C = 0$		0.5	mA
$h_{FE 1}$	DC Current Gain	$I_C = 2\text{A}$; $V_{CE} = 2\text{V}$	20	80	
$h_{FE 2}$	DC Current Gain	$I_C = 4\text{A}$; $V_{CE} = 4\text{V}$	15		
$h_{FE 3}$	DC Current Gain	$I_C = 10\text{A}$; $V_{CE} = 4\text{V}$	5		