

isc Silicon PNP Darlington Power Transistor
BDX34
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -45V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 750(\text{Min}) @ I_C = -4A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -2.5V(\text{Max.}) @ I_C = -4A$
- Complement to Type BDX33
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

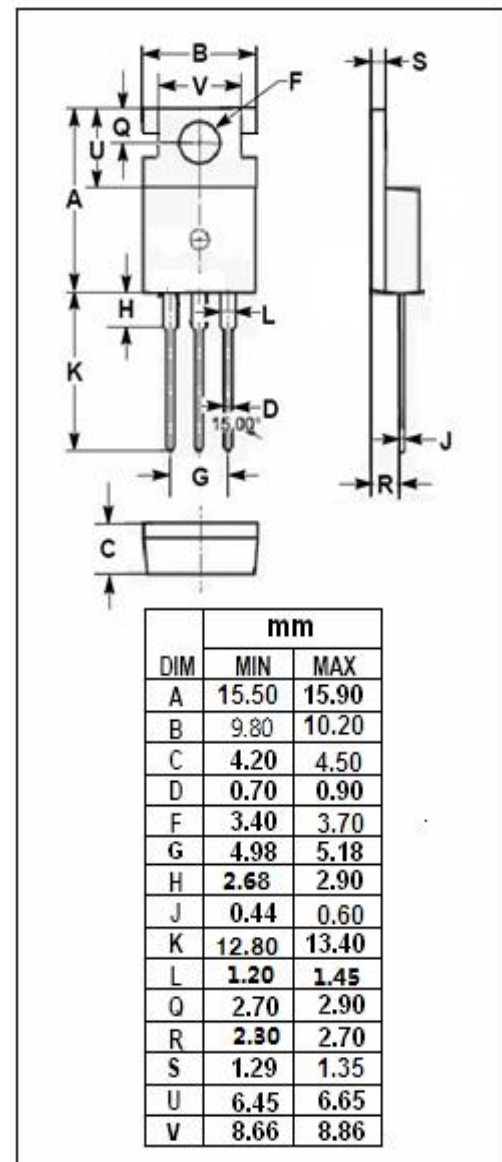
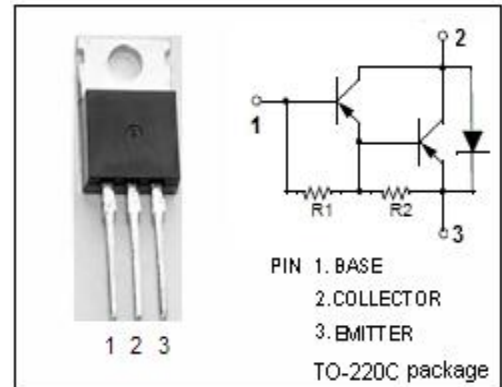
- Designed for general purpose amplifier and low speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-45	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Peak	-15	A
I_B	Base Current-Continuous	-0.25	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	70	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	1.78	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -50mA; I _B = 0	-45			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B = -8mA			-2.5	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -4A; V _{CE} = -3V			-2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -45V; I _E = 0			-0.2	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = -22V; I _B = 0			-0.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-10	mA
h _{FE}	DC Current Gain	I _C = -4A; V _{CE} = -3V	750			

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