

isc Silicon PNP Power Transistors
BDX18
DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
: $h_{FE}=20-70@I_C=-4A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)}=-1.1V(Max)@I_C=-4A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

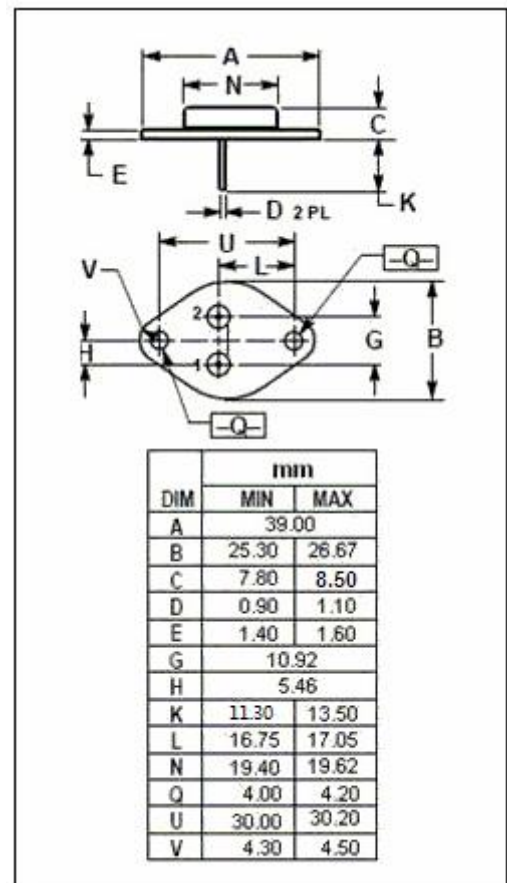
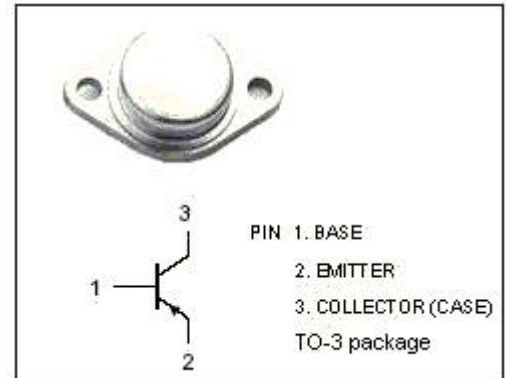
- Designed for general-purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CER}	Collector-Emitter Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-15	A
I_B	Base Current	-7	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	117	W
T_J	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -30mA ; I _B = 0	-60		V
V _{CER(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -200mA ; R _{BE} = 100 Ω	-70		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B = -0.4A		-1.1	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -4A; V _{CE} = -4V		-1.8	V
I _{CEX}	Collector Cutoff Current	V _{CE} = -90V; V _{BE} = 1.5V V _{CE} = -60V; V _{BE} = 1.5V, T _C = 150°C		-5.0 -10	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7.0V; I _C = 0		-5.0	mA
h _{FE}	DC Current Gain	I _C = -4A ; V _{CE} = -4V	20	70	
f _T	Current Gain-Bandwidth Product	I _C = -1A; V _{CE} = -10V; f _{test} = 1.0MHz	4		MHz

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