

isc Silicon PNP Power Transistor

BDX20

DESCRIPTION

- High Current Capability
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -140V(\text{Min})$
- High Switching Speed

APPLICATIONS

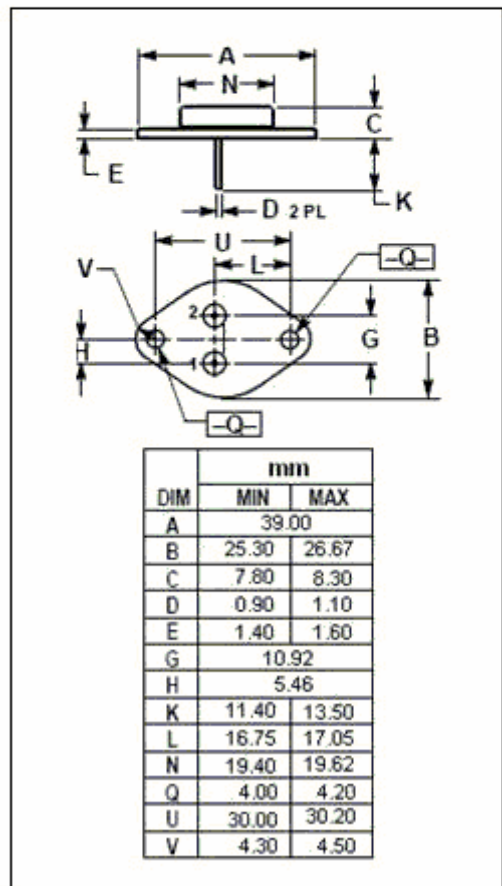
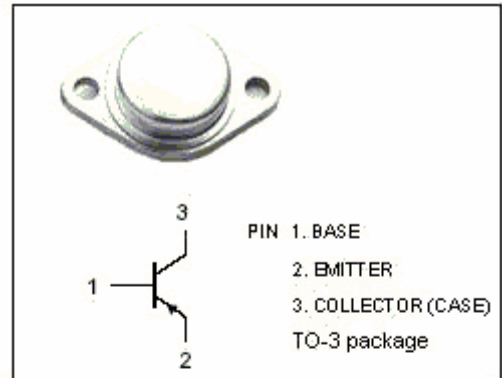
- Designed for LF large signal power amplification.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEX}	Collector-Emitter Voltage- $V_{BE} = 1.5V$	-160	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-10	A
I_B	Base Current-Continuous	-7	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	117	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



isc Silicon PNP Power Transistor**BDX20****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -200mA ; I _B = 0	-140			V
V _{CEX}	Collector-Emitter Breakdown Voltage	I _C = -100mA ; V _{BE} = 1.5V	-160			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -3A ; I _B = -0.3A			-1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -10A ; I _B = -2A			-5.0	V
V _{BE(on)-1}	Base-Emitter On Voltage	I _C = -3A ; V _{CE} = -4V		-1.7		V
V _{BE(on)-2}	Base-Emitter On Voltage	I _C = -10A ; V _{CE} = -4V		-5.7		V
I _{CEX}	Collector Cutoff Current	V _{CE} = -140V; V _{BE} = 1.5V V _{CE} = -140V; V _{BE} =1.5V, T _C = 150°C			-1.0 -10	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = -140V; I _E = 0			-1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7.0V; I _C = 0			-5.0	mA
h _{FE-1}	DC Current Gain	I _C = -3A ; V _{CE} = -4V	20		70	
h _{FE-2}	DC Current Gain	I _C = -10A ; V _{CE} = -4V		10		
f _T	Current Gain-Bandwidth Product	I _C = -1A; V _{CE} = -10V; f _{test} = 1.0MHz	4			MHz