

isc Silicon NPN Power Transistor
BDX41
DESCRIPTION

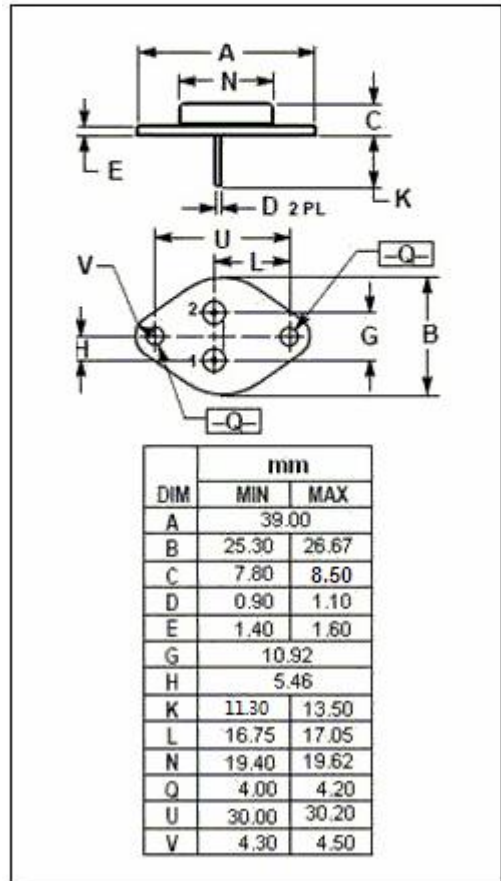
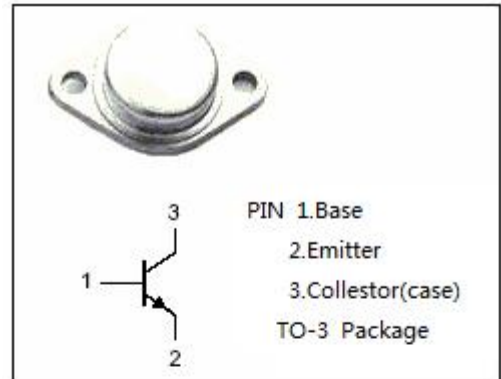
- With TO-3 Package
- High Current Capability
- Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for general-purpose power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	16	A
I _{CM}	Collector Current-Peak	20	A
I _B	Base Current-Continuous	5	A
P _C	Collector Power Dissipation	150	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C =5A; I _B = 0.5A			1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 1A			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =5A; I _B = 0.5A			1.5	V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA; I _B = 0	40			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
h _{FE-1}	DC Current Gain	I _C =1A; V _{CE} = 5V	60		200	
h _{FE-2}	DC Current Gain	I _C =15A; V _{CE} = 5V	15		60	
I _{CBO}	Collector Cutoff Current	V _{CB} =50V ; I _E = 0			100	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} =6V; I _C = 0			100	uA
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 10V; f _{test} = 1.0MHz	3			MHz

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