

isc Silicon NPN Power Transistor
BDW21
DESCRIPTION

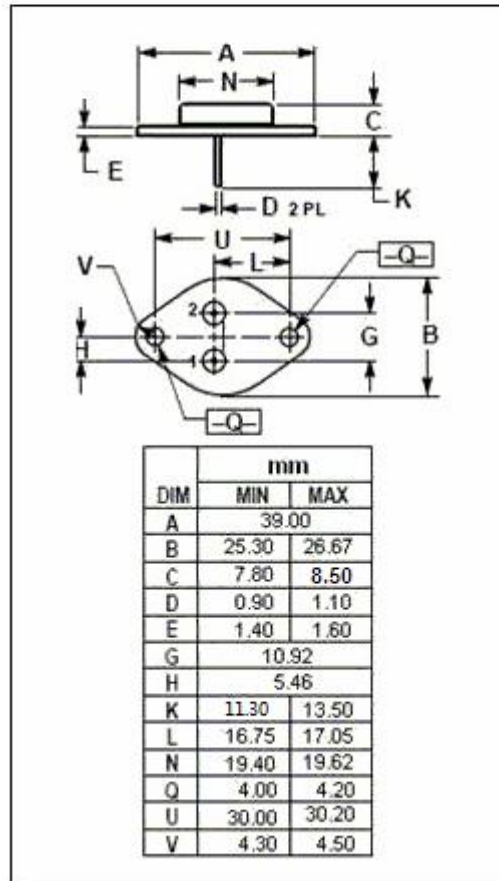
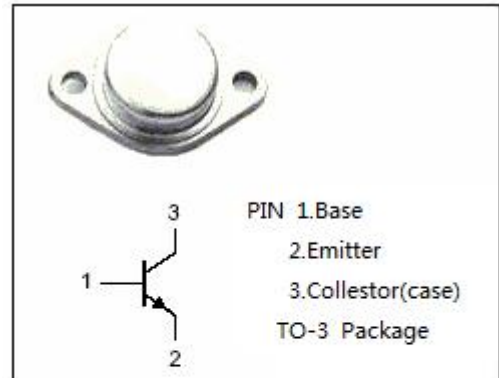
- With TO-3 Package
- High Current Capability
- Wide area of safe operation
- Complement to Type BDW22
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	45	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation	90	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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	45			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			
I _{CBO}	Collector Cutoff Current	V _{CB} =45V ; 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 = 0.1A; V _{CE} = 10V; f _{test} = 1.0MHz	3			MHz

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