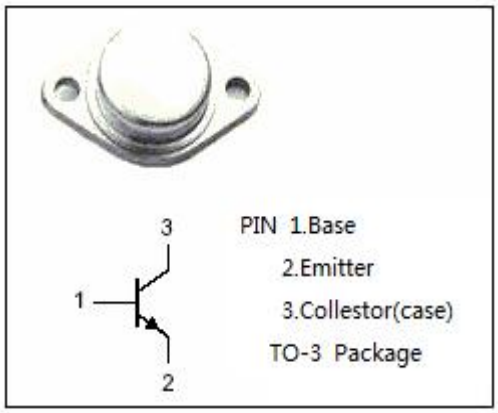
isc Silicon NPN Power Transistors — BDW36

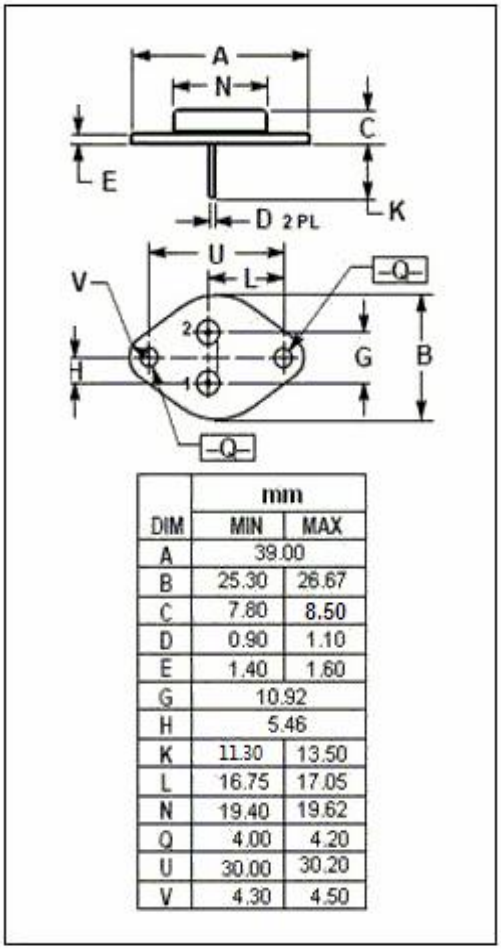
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 180V(Min)
- High Switching Speed
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 10A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in industrial-military power amplifier and switching circuit applications.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_{CM}	Collector Current-Peak	50	A
I_B	Base Current-Continuous	10	A
P_C	Collector Power Dissipation @T_C=25℃	250	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.875	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	150		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B= 1A		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 30A; I_B= 6A		3.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 10A; I_B= 1A		1.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 10A; V_{CE}= 4V		1.8	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 90V; I_B= 0		50	μA
I_{CBO}	Collector Cutoff Current	V_{CB}=180V; I_E= 0		10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 8A; V_{CE}= 4V	20	100	
h_{FE-2}	DC Current Gain	I_C= 30A; V_{CE}= 4V	5		
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 10V	1		MHz