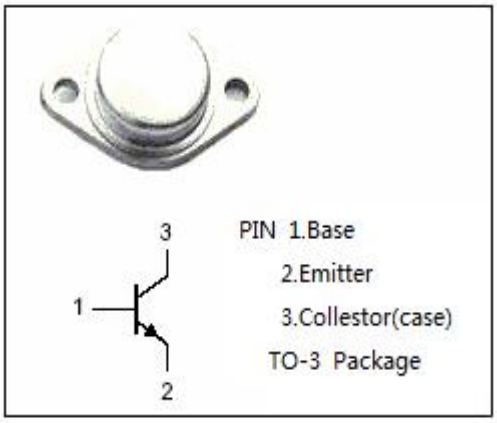
isc Silicon NPN Power Transistor — BUW70

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 100V(Min.)
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 0.8V(Max.) @I_C= 4A
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

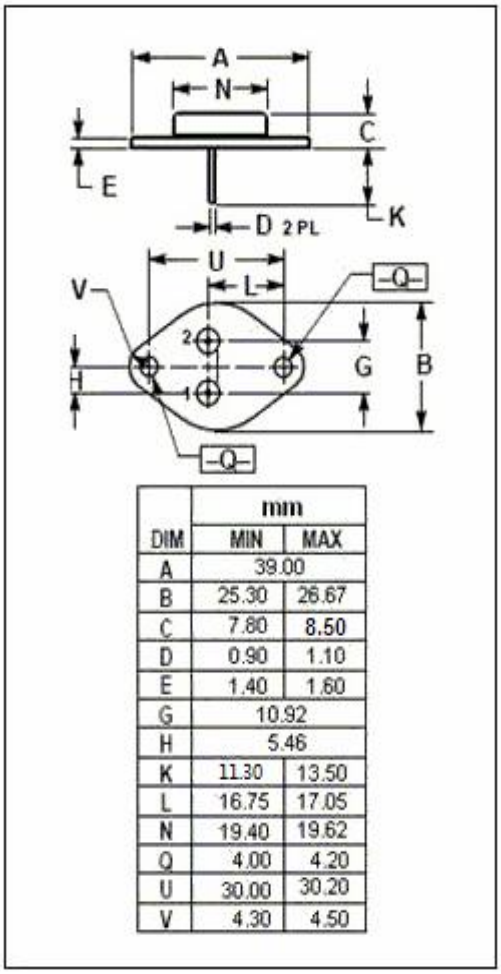


APPLICATIONS

- Designed for use in clocked voltage converters.

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @T_C=25℃	80	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



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

THERMAL CHARACTERISTICS

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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 150V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			0.1	mA
h_{FE}	DC Current Gain	I_C= 4A; V_{CE}= 5V	40			
Switching times						
t_{on}	Turn-on Time	I_C= 5A; I_{B1}= -I_{B2}= 0.5A; R_L= 10Ω			1.0	μs
t_s	Storage Time				3.0	μs
t_f	Fall Time				1.0	μs