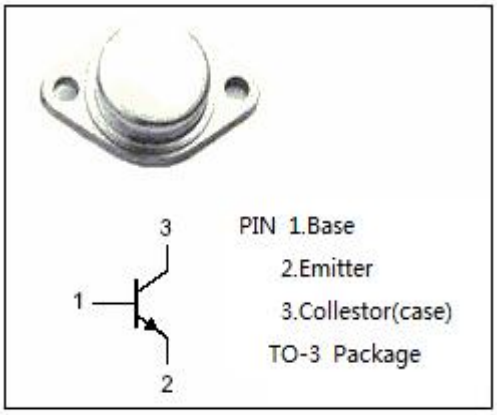
isc Silicon NPN Power Transistor — BUW57

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 125V(Min.)
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.5V(Max.) @I_C= 18A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

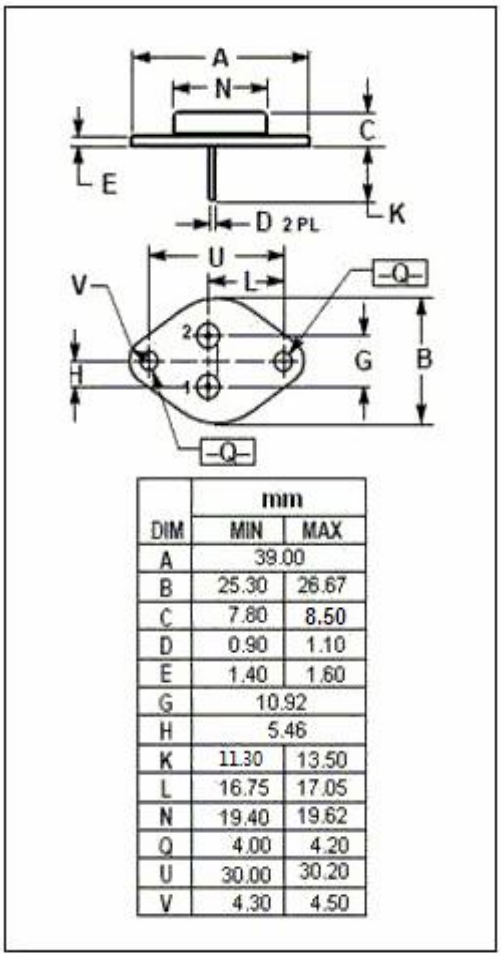


APPLICATIONS

- Designed for high current, high speed, high power applications.

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	125	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Collector Current-Peak	25	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-peak	6	A
P_C	Collector Power Dissipation @T_C=25℃	120	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	1.25	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	125			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 18A; I_B= 1.8A			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 18A; I_B= 1.8A			1.7	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 150V; I_E= 0 V_{CB}= 150V; I_E= 0;T_C=125℃			1.0 10	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			5.0	mA
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 10V		15		MHz
Switching times						
t_{on}	Turn-on Time	I_C= 15A; I_{B1}= -I_{B2}= 1.5A; V_{CC}= 60V; t_p= 10 μ s			1.0	μ s
t_s	Storage Time				1.5	μ s
t_f	Fall Time				0.5	μ s