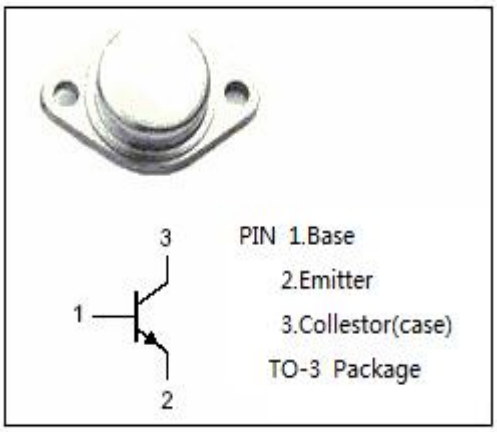
isc Silicon NPN Power Transistor — BUW87A

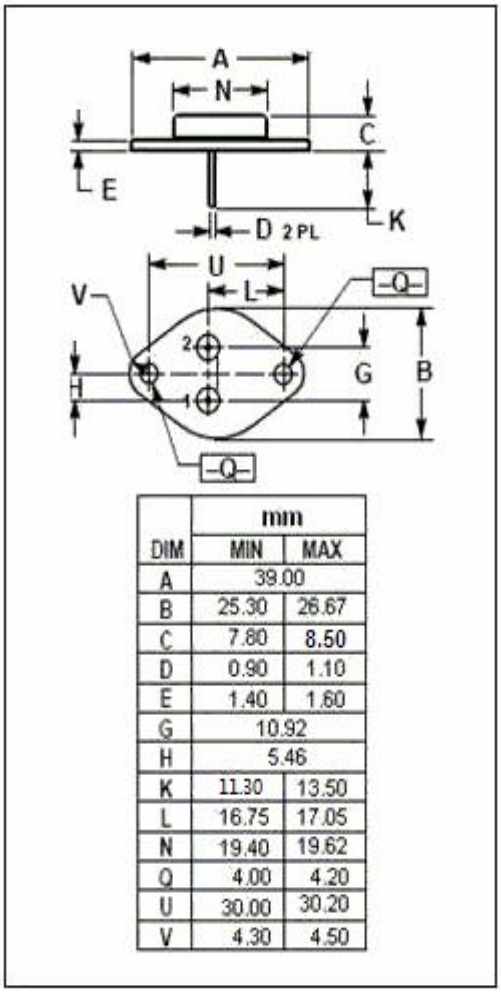
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 200V(Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in converters, inverters, switching regulators and switching control amplifiers.





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	400	V
V_{CES}	Collector-Emitter Voltage V_{BE}=0	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	2	A
I_{BM}	Base Current-Peak	3	A
P_C	Collector Power Dissipation @ T_C=25℃	62.5	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.8	℃/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	200			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A			0.65	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.6	V
I_{CBO}	Collector-Base Cutoff Current	V_{CB}= V_{CBO}; I_E= 0 V_{CB}= V_{CBO}; I_E= 0; T_J= 150℃			1 2	mA
h_{FE}	DC Current Gain	I_C= 3A; V_{CE}= 5V	20			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A ; V_{CE}= 5V;f_{test}= 5MHz		50		MHz
Switching Times; Resistive Load						
t_{on}	Turn-On Time	I_C= 5A; I_{B1}= -I_{B2}= 0.5A;V_{CC}=100V		0.3	0.4	μs
t_s	Storage Time			1.0	1.5	μs
t_f	Fall Time			0.15	0.3	μs

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