isc Silicon NPN Power Transistor BUV61

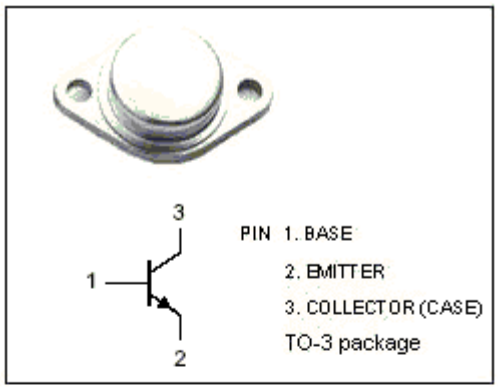
DESCRIPTION

·High Current Capability

·Fully characterized at 125℃

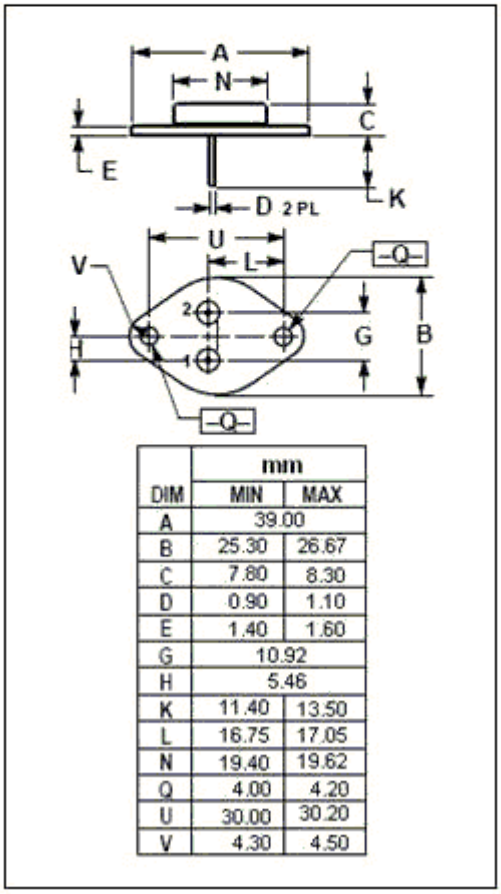
·Fast switching speed

·Motor control



APPLICATIONS

·Intented for use in high frequency and efficiency converters such us motor controllers and industrial equipment.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage (V_{BE}= -1.5V)	300	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	50	A
I_{CM}	Collector Current-Peak	75	A
I_B	Base Current-Continuous	8	A
I_{BM}	Base Current-peak	15	A
P_C	Collector Power Dissipation @T_C=25℃	250	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	0.7	℃/W

isc Silicon NPN Power Transistor BUV61

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 0.2A; I_B= 0; L= 25mH	200		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 50mA; I_C= 0	7		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 12.5A; I_B= 0.625A I_C= 12.5A; I_B= 0.625A; T_j= 100℃		0.9 1.2	V
$V_{CE\ (sat)-2}$	Collector-Emitter Saturation Voltage	I_C=25A; I_B= 2.5A I_C=25A; I_B= 2.5A; T_j= 100℃		0.9 1.5	V
$V_{CE\ (sat)-3}$	Collector-Emitter Saturation Voltage	I_C=40A; I_B= 5A I_C=40A; I_B= 5A; T_j= 100℃		1.2 1.9	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C=25A; I_B= 2.5A I_C=25A; I_B= 2.5A; T_j= 100℃		1.4 1.7	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C=40A; I_B= 5A I_C=40A; I_B= 5A; T_j= 100℃		1.8 1.8	V
I_{CER}	Collector Cutoff Current	V_{CE}= 300V; R_{BE}= 10Ω V_{CE}= 300V; T_C=100℃		1 5	mA
I_{CEV}	Collector Cutoff Current	V_{CE}= 300V; V_{BE}= -1.5V V_{CE}=300V;T_C=100℃		1 4	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1.0	mA