isc Silicon NPN Power Transistor BUV42A

DESCRIPTION

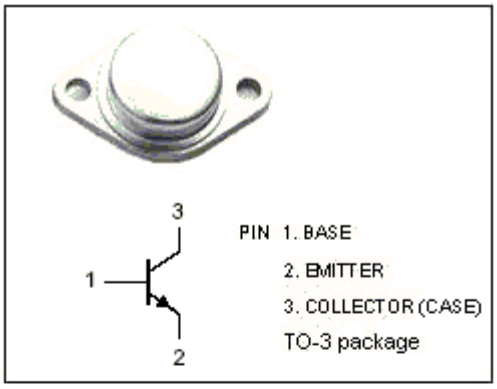
·Low Collector Saturation Voltage-

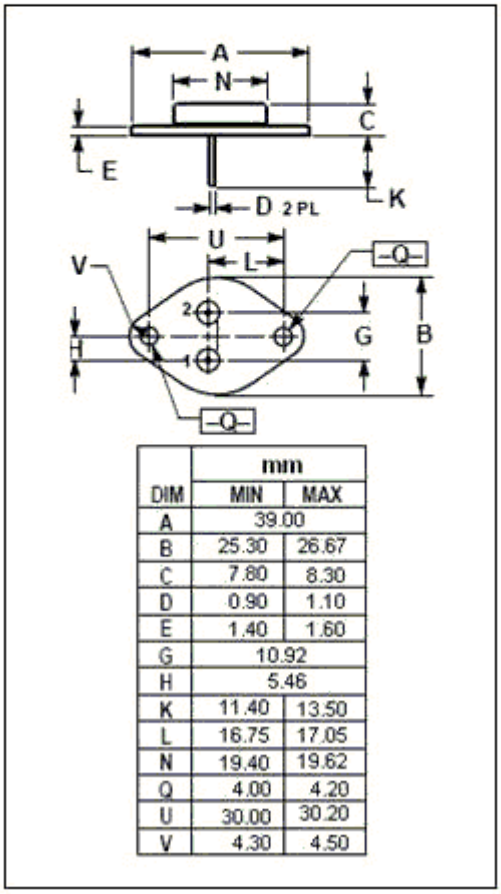
: $V_{CE(sat)}$= 0.9V(Max.) @I_C= 4A

·High Switching Speed

APPLICATIONS

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





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	400	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-Peak	18	A
I_B	Base Current-Continuous	2.5	A
I_{BM}	Base Current- Peak	4	A
P_C	Collector Power Dissipation @T_C=25℃	120	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	1.46	℃/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= 0.2A; I_B= 0; L= 25mH	300			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 50mA; I_C= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A			0.9	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A			1.3	V
I_{CER}	Collector Cutoff Current	V_{CE}= 400V;R_{BE}= 10Ω V_{CE}= 400V;R_{BE}= 10Ω ;T_C=100℃			0.5 2.5	mA
I_{CEV}	Collector Cutoff Current	V_{CE}= 400V;V_{BE}= -1.5V V_{CE}= 400V;V_{BE}= -1.5V;T_C=100℃			0.5 2.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1.0	mA