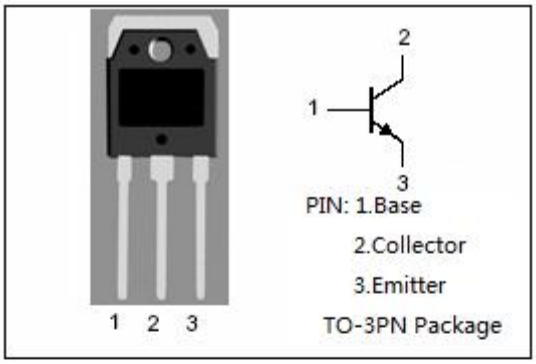
isc Silicon NPN Power Transistor BUX98PI

DESCRIPTION

- High voltage high speed
- High Current Capability
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

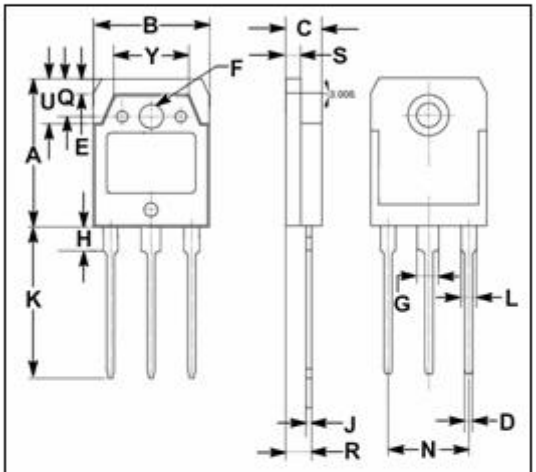
- High voltage high speed transistor suited for use on the 220V and 380V mains
- Suitable for switch mode power supplies,DC and AC motor motor control

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	850	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_{CM}	Collector Current-peak	45	A
I_B	Base Current-Continuous	6	A
I_{BM}	Base Current-peak	10	A
P_C	Collector Power Dissipation @T_C=25℃	200	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.63	℃/W



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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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= 200mA ; L=25mH	450			V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C= 20A ;I_B= 4A			0.9	V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C= 20A ;I_B= 4A			1.5	V
I_{CER}	Collector Cutoff Current(R_{BE}=5Ω)	V_{CE}=V_{CEV}; V_{CE}=V_{CEV};T_C=100℃			0.2 1	mA
I_{CEV}	Collector Cutoff Current	V_{CE}= V_{CEV}; VBE=-1.5V V_{CE}= V_{CEV}; VBE=-1.5V;TC=100℃			0.2 1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1	mA
Switching Times						
t_S	Storage Time	I_C= 20A ;I_{B1}=-I_{B2}= 4A; V_{CC}= 50V;V_{clamp} =450V V_{BB}=-5V;R_{BB}=0.62Ω L_C=0.12mH,Tj=100℃			4.5	μs
t_f	Fall Time				0.4	μs
t_c	Crossover Time				0.7	μs

*Pulse:pulse duration=300us,duty cycle=1.5%