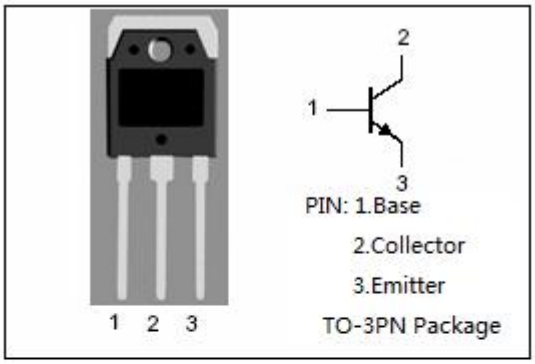
isc Silicon NPN Power Transistor BUX98AP

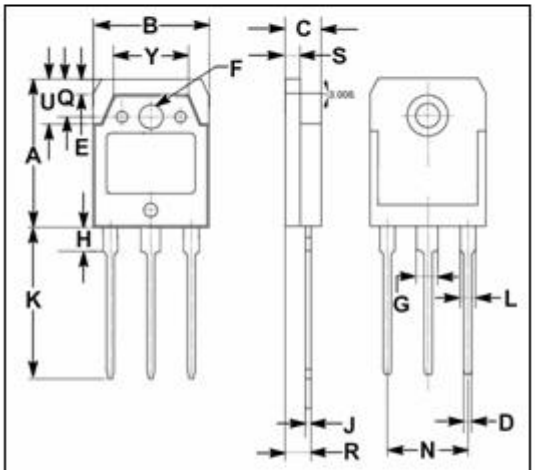


DESCRIPTION

- High Voltage Capability
- High Current Capability
- Fast Switching Speed

APPLICATIONS

- High frequency and efficiency converters
- Linear and switching industrial equipment



DIM	mm MIN	mm 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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1000	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	24	A
I_{CM}	Collector Current-peak (tp <5 ms)	36	A
I_B	Base Current-Continuous	5	A
I_{BM}	Base Current-peak (tp <5 ms)	8	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

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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	450			V
$V_{CER(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 1mA	1000			V
☆$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 16A ;I_B= 3.2A			1.2	V
☆$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 16A ;I_B= 3.2A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}=1000V; I_E= 0 V_{CB}=1000V; I_E= 0 T_C=125℃			0.4 4	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 450V; I_B= 0			2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			2	mA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	15		50	

☆ Pulsed: Pulse duration = 300 ms, duty cycle = 1.5 %

Switching Times

t_{on}	Turn-on Time	I_C= 16A ;I_{B1}=-I_{B2}= 3.2A; V_{CC}= 150V			1.0	μs
t_s	Storage Time				3.0	μs
t_f	Fall Time				0.8	μs