

isc Silicon NPN Power Transistor

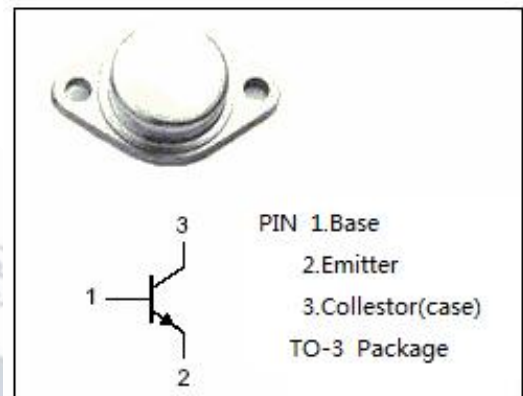
BUX98B

DESCRIPTION

- High Voltage Capability
- High Current Capability
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

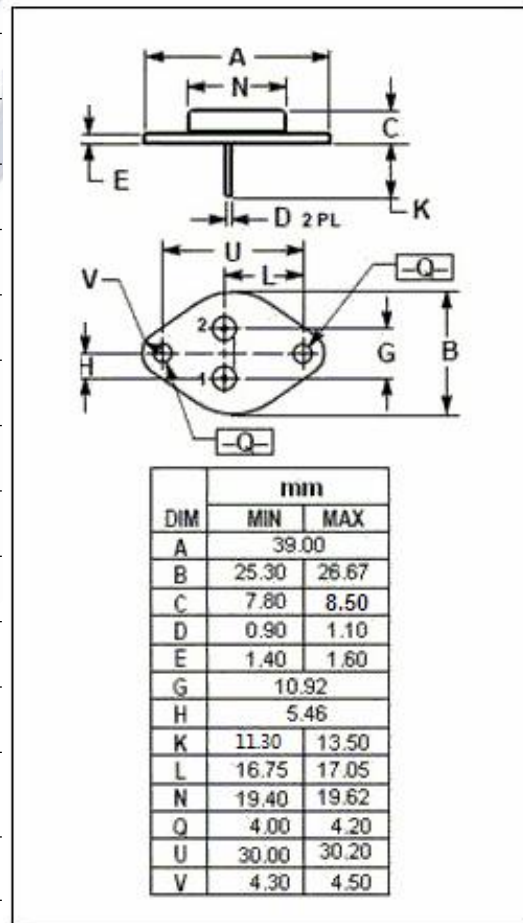
APPLICATIONS

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



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	1000	V
V _{CEO}	Collector-Emitter Voltage	600	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	30	A
I _{CM}	Collector Current-peak (tp <5 ms)	60	A
I _B	Base Current-Continuous	8	A
I _{BM}	Base Current-peak (tp <5 ms)	30	A
P _C	Collector Power Dissipation @T _C =25°C	250	W
T _J	Junction Temperature	200	°C
T _{stg}	Storage Temperature Range	-65~200	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.7	°C/W

isc Silicon NPN Power Transistor**BUX98B****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
☆V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; I _B = 0	600			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			1.5	V
☆V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 24A ; I _B = 5A			5.0	V
☆V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 16A ; I _B = 3.2A			1.6	V
I _{CBO}	Collector Cutoff Current	V _{CB} =1000V; I _E = 0 V _{CB} =1000V; I _E = 0 T _C =125°C			0.4 4	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 600V; 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	μ s
t _s	Storage Time				3.0	μ s
t _f	Fall Time				0.8	μ s