

isc Silicon NPN Power Transistor
BUS98A
DESCRIPTION

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

APPLICATIONS

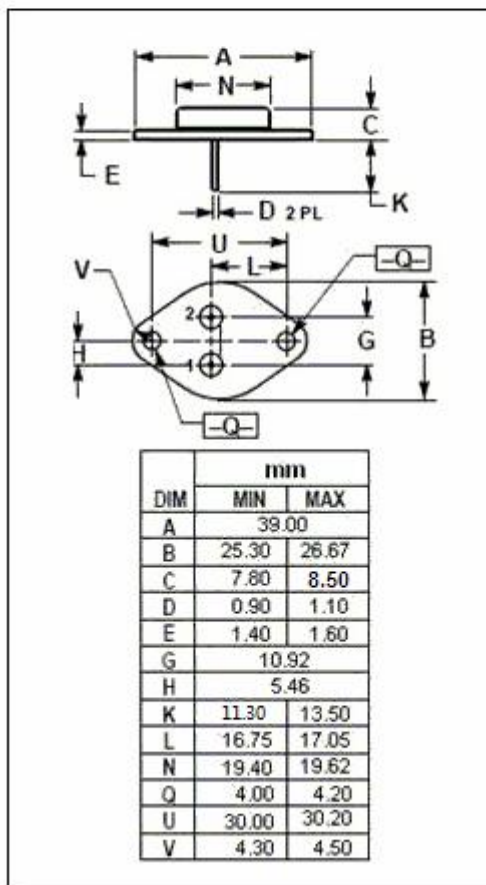
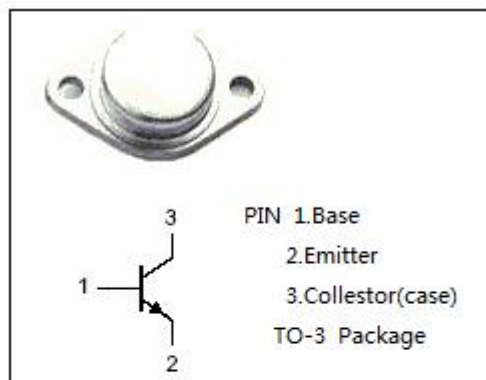
Designed for high-voltage, high-speed, power switching in inductive circuits where fall time is critical. They are particularly suited for line-operated switchmode applications

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage ($V_{BE} = -1.5V$)	1000	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	60	A
I_B	Base Current-Continuous	10	A
I_{BM}	Base Current-peak	30	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	250	W
T_j	Junction Temperature	200	°C
T_{stg}	Storage Temperature Range	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.0	°C/W



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	450		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	7		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 16A; I _B = 3.2A I _C = 16A; I _B = 3.2A; T _C = 100°C		1.5 2.0	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 I _C = 16A; I _B = 3.2A; T _C = 100°C		1.6 1.6	V
I _{CBO}	Collector Base Cutoff Current	V _{CB} = 1000V; I _E = 0 V _{CB} = 1000V; I _E = 0; T _C = 125°C		0.4 4	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		0.1	mA
h _{FE}	DC Current Gain	I _C = 16A ; V _{CE} = 5V	8		

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