

isc Silicon NPN Power Transistor

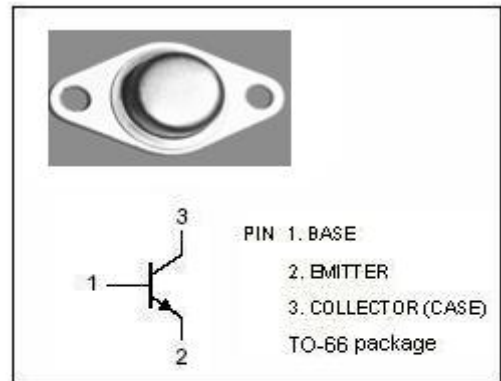
BUX59

DESCRIPTION

- Low Saturation Voltage
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

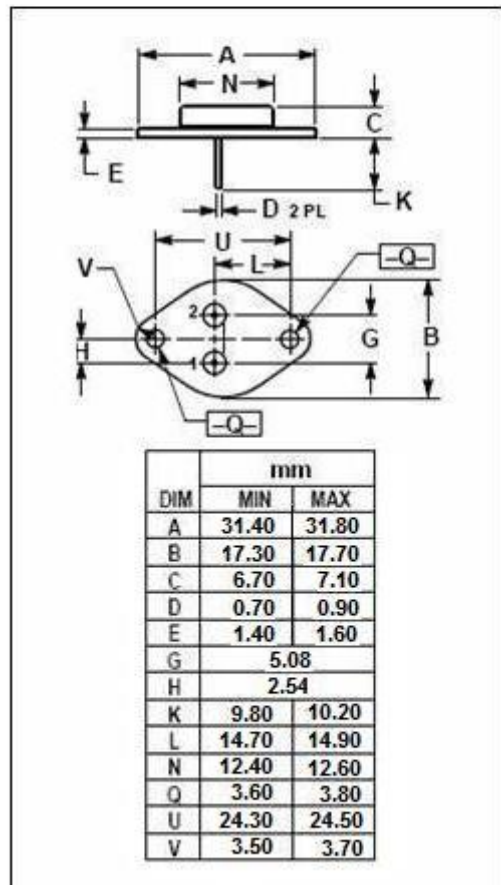
APPLICATIONS

- Designed for use in high frequency and efficiency converters, switching regulators and motor control



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	120	V
V _{CEO}	Collector-Emitter Voltage	90	V
V _{EB0}	Emitter-Base Voltage	6	V
I _c	Collector Current-Continuous	8	A
P _C	Collector Power Dissipation@T _C =25°C	70	W
T _J	Junction Temperature	200	°C
T _{stg}	Storage Temperature	-65~200	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	5.0	°C/W

isc Silicon NPN Power Transistor**BUX59****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE(SUS)}	Collector-Emitter Sustaining Voltage	I _C =50mA ; I _B =0	90		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A		1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A		2.0	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 90V; I _B =0		2	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V, I _E =0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0		0.5	mA
h _{FE-1}	DC Current Gain	I _C = 4A ; V _{CE} = 5V	20	60	

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