

**isc Silicon NPN Power Transistor**
**BUX61**
**DESCRIPTION**

- Low Saturation Voltage
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

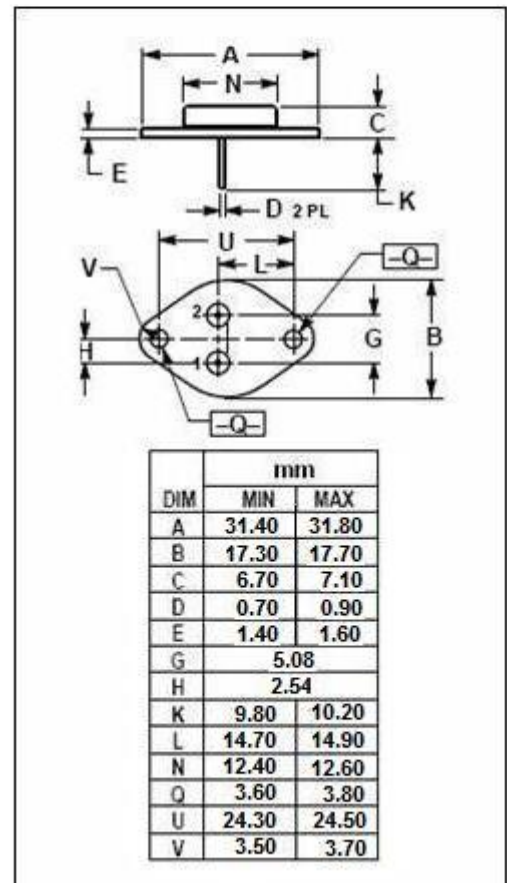
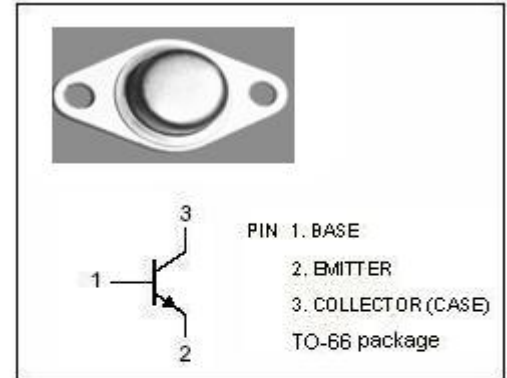
- Designed for use in high frequency and efficiency converters, switching regulators and motor control

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	250	V
V <sub>CEO</sub>	Collector-Emitter Voltage	200	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current-Continuous	8	A
P <sub>C</sub>	Collector Power Dissipation@T <sub>C</sub> =25°C	70	W
T <sub>J</sub>	Junction Temperature	200	°C
T <sub>stg</sub>	Storage Temperature	-65~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	5.0	°C/W



**isc Silicon NPN Power Transistor****BUX61****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}$ ; $I_B=0$	200		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 8\text{A}$ ; $I_B= 0.8\text{A}$		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 8\text{A}$ ; $I_B= 0.8\text{A}$		2.0	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 200\text{V}$ ; $I_B=0$		2	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 250\text{V}$ , $I_E=0$		1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 6\text{V}$ ; $I_C=0$		0.5	mA
$h_{FE}$	DC Current Gain	$I_C= 3\text{A}$ ; $V_{CE}= 4\text{V}$	20	60	
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}$ ; $V_{CE}=10\text{V}$	8		MHz

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