

**isc Silicon NPN Power Transistor**
**BUX60**
**DESCRIPTION**

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

**APPLICATIONS**

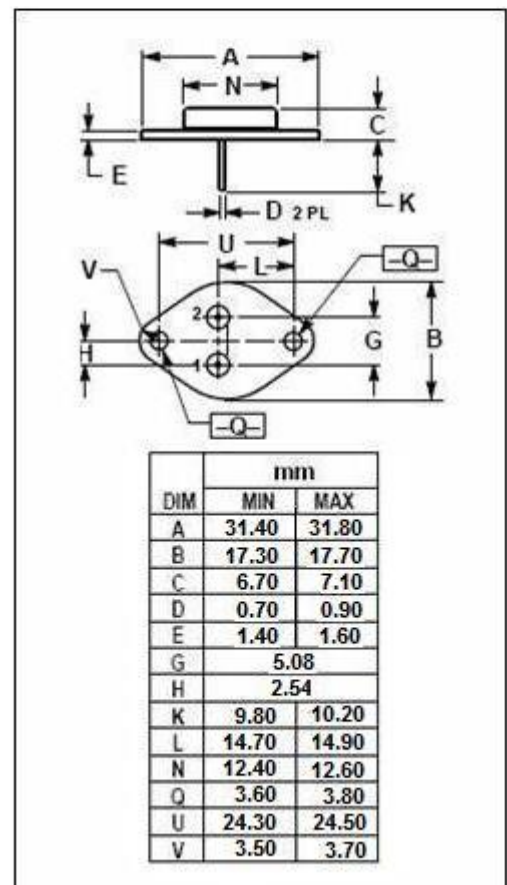
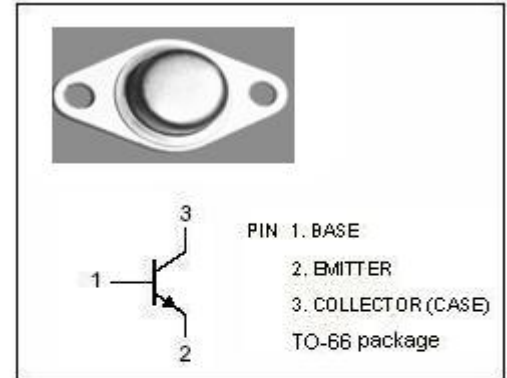
- Designed for use in high frequency and efficiency converters, switching regulators and motor control

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	125	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	8	A
$P_C$	Collector Power Dissipation@ $T_C=25^{\circ}\text{C}$	70	W
$T_J$	Junction Temperature	200	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-65~200	$^{\circ}\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5.0	$^{\circ}\text{C}/\text{W}$



**isc Silicon NPN Power Transistor****BUX60****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}$ ; $I_B=0$	125		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	$V_{CE}= 125\text{V}$ ; $I_B=0$		2	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 160\text{V}$ , $I_E=0$		1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 6\text{V}$ ; $I_C=0$		0.5	mA
$h_{FE}$	DC Current Gain	$I_C= 4\text{A}$ ; $V_{CE}= 4\text{V}$	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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