

isc Silicon NPN Power Transistors

BUX18/A/B/C

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
 : $V_{CEO(SUS)} = 200V(\text{Min})$ - BUX18
 = $325V(\text{Min})$ - BUX18A
 = $375V(\text{Min})$ - BUX18B
 = $425V(\text{Min})$ - BUX18C
- High Switching Speed
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

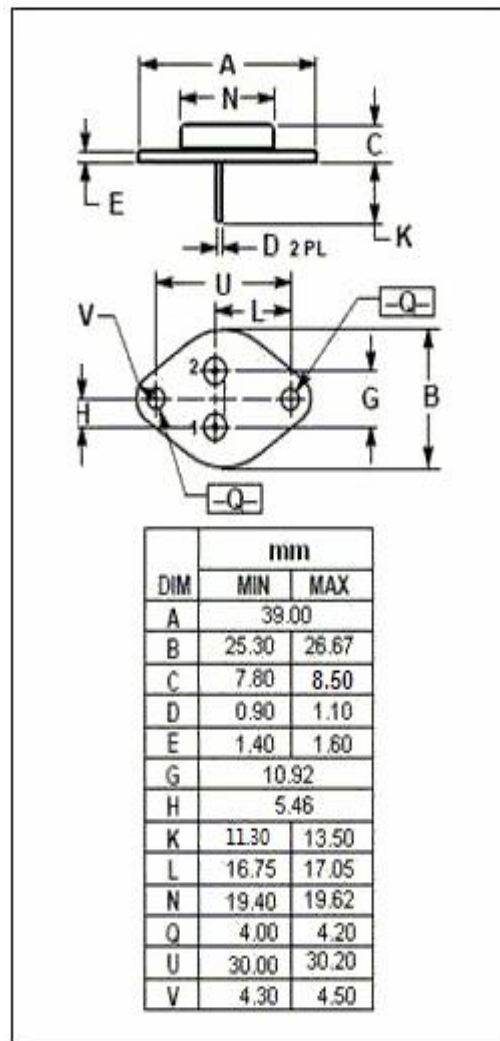
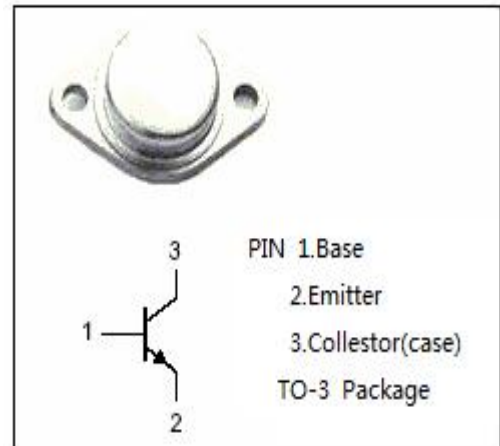
- Designed for use in off-line power supplies and is also well suited for use in a wide range of inverter or converter circuits and pulse-width-modulated regulators.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage $V_{BE} = -1.5V$	BUX18	250
		BUX18A	350
		BUX18B	400
		BUX18C	475
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BUX18	200
		BUX18A	275
		BUX18B	325
		BUX18C	375
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	8	A
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	120	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	1.17	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS
 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	BUX18	$I_C=50\text{mA}; I_B=0$	200			V
		BUX18A		275			
		BUX18B		325			
		BUX18C		375			
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage		$I_E=1\text{mA}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BUX18	$I_C=6\text{A}; I_B=1.2\text{A}$			2.5	V
		BUX18A	$I_C=5\text{A}; I_B=1\text{A}$				
		BUX18B/C	$I_C=4\text{A}; I_B=0.8\text{A}$				
$V_{BE(on)}$	Base-Emitter On Voltage	BUX18	$I_C=6\text{A}; V_{CE}=3\text{V}$			1.5	V
		BUX18A/B/C	$I_C=4\text{A}; V_{CE}=3\text{V}$				
I_{CBO}	Collector Cutoff Current	BUX18	$V_{CB}=300\text{V}; I_E=0$ $V_{CB}=300\text{V}; I_E=0, T_C=150^\circ\text{C}$			3 10	mA
		BUX18A	$V_{CB}=350\text{V}; I_E=0$ $V_{CB}=350\text{V}; I_E=0, T_C=150^\circ\text{C}$			3 10	
		BUX18B	$V_{CB}=400\text{V}; I_E=0$ $V_{CB}=400\text{V}; I_E=0, T_C=150^\circ\text{C}$			3 5	
		BUX18C	$V_{CE}=475\text{V}; I_E=0$ $V_{CE}=475\text{V}; I_E=0, T_C=150^\circ\text{C}$			3 5	
I_{EBO}	Emitter Cutoff Current		$V_{EB}=6\text{V}; I_C=0$			1.0	mA
h_{FE}	DC Current Gain	BUX18	$I_C=6\text{A}; V_{CE}=3\text{V}$	7			
		BUX18A	$I_C=5\text{A}; V_{CE}=3\text{V}$				
		BUX18B/C	$I_C=4\text{A}; V_{CE}=3\text{V}$	10			

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