

isc Silicon NPN Power Transistors

BUX32/A/B

DESCRIPTION

- High Switching Speed
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)-BUX32
= 450V (Min)-BUX32A
= 450V (Min)-BUX32B
- Low Saturation Voltage

APPLICATIONS

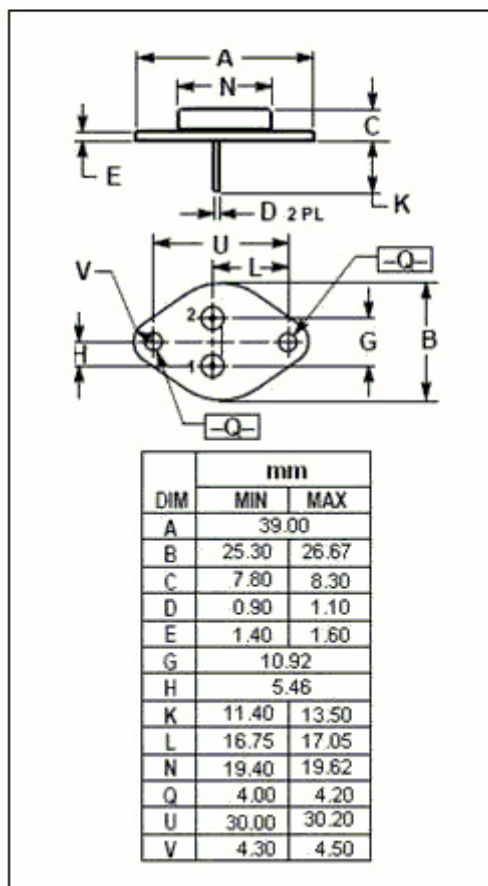
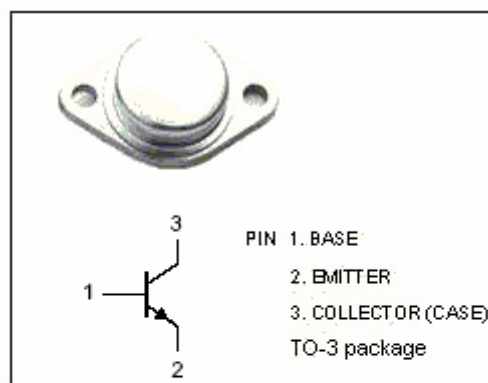
- Designed for off-line power supplies and are also well suited for use in a wide range of inverter or converter circuits and pulse-width-modulated regulators.

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CES}	Collector- Emitter Voltage($V_{BE}=0$)	BUX32	800
		BUX32A	900
		BUX32B	1000
V_{CEO}	Collector-Emitter Voltage	BUX32	400
		BUX32A	450
		BUX32B	500
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	150	W
T_j	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BUX32	$I_C=0.2\text{A}; I_B=0$	400			V
		BUX32A		450			
		BUX32B		500			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C=6\text{A}; I_B=1.2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		$I_C=6\text{A}; I_B=1.2\text{A}$			1.3	V
I_{CEV}	Collector Cutoff Current	BUX32	$V_{CE}=800\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=800\text{V}; V_{BE}=-1.5\text{V}, T_C=125^{\circ}\text{C}$			0.1 1.0	mA
		BUX32A	$V_{CE}=900\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=900\text{V}; V_{BE}=-1.5\text{V}, T_C=125^{\circ}\text{C}$			0.1 1.0	
		BUX32B	$V_{CE}=1000\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=1000\text{V}; V_{BE}=-1.5\text{V}, T_C=125^{\circ}\text{C}$			0.1 1.0	
I_{EBO}	Emitter Cutoff Current		$V_{EB}=8\text{V}; I_C=0$			2	mA
h_{FE}	DC Current Gain		$I_C=6\text{A}; V_{CE}=3\text{V}$	8			
f_T	Current-Gain—Bandwidth Product		$I_C=0.2\text{A}; V_{CE}=10\text{V}$	15			MHz