

isc Silicon NPN Power Transistors
BUW64A/B
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
 : $V_{CEO(SUS)} = 90V(\text{Min})$ - BUW64A
 = $110V(\text{Min})$ - BUW64B
 = $130V(\text{Min})$ - BUW64C
- High Switching Speed
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

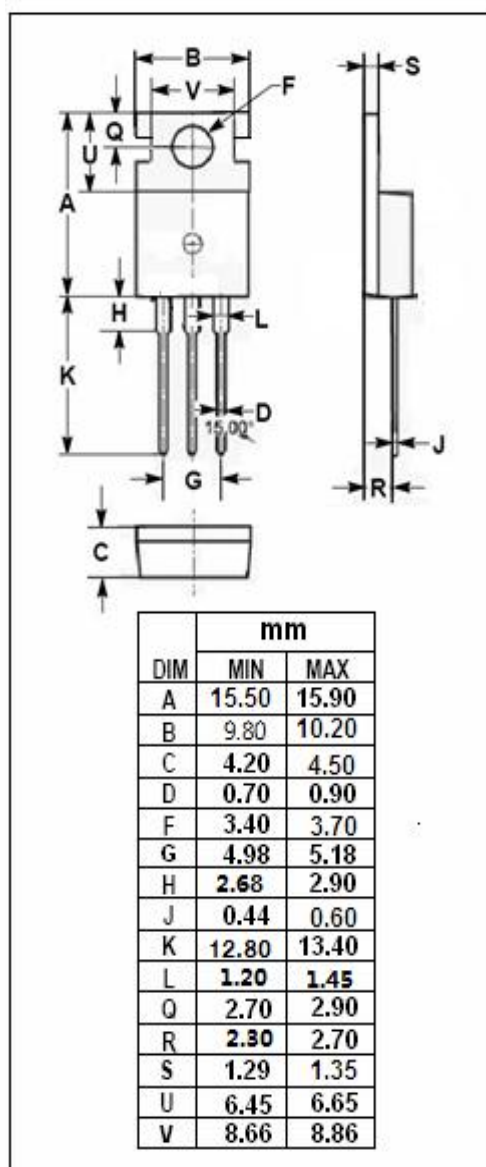
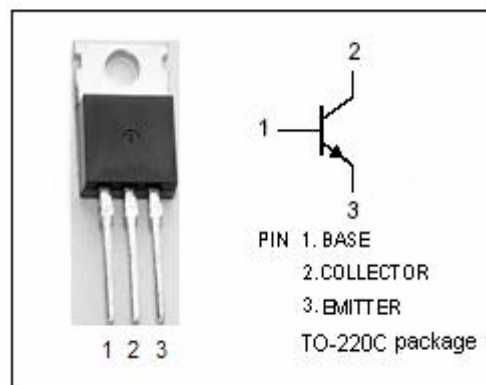
- Designed for converters, inverters, pulse-width-modulated regulators and a variety of power switching circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CEV}	Collector-Emitter Voltage $V_{BE} = -1.5V$	BUW64A	140	V
		BUW64B	160	
		BUW64C	180	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BUW64A	90	V
		BUW64B	110	
		BUW64C	130	
V_{EBO}	Emitter-Base Voltage	7	V	
I_C	Collector Current-Continuous	7	A	
I_{CM}	Collector Current-Peak	10	A	
I_b	Base Current-Continuous	5	A	
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	50	W	
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^\circ\text{C/W}$



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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BUW64A	$I_C=10\text{mA}; I_B=0$	90			V
		BUW64B		110			
		BUW64C		130			
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	BUW64A/B	$I_C=5\text{A}; I_B=0.5\text{A}$			0.8	V
		BUW64C	$I_C=4\text{A}; I_B=0.4\text{A}$			0.7	
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		$I_C=7\text{A}; I_B=0.7\text{A}$			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BUW64A/B	$I_C=5\text{A}; I_B=0.5\text{A}$			1.4	V
		BUW64C	$I_C=4\text{A}; I_B=0.4\text{A}$			1.4	
I_{CBO}	Collector -Base Cutoff Current	BUW64A	$V_{CB}=140\text{V}; I_E=0$ $V_{CB}=140\text{V}; I_E=0, T_C=150^\circ\text{C}$			0.1 1.0	mA
		BUW64B	$V_{CB}=160\text{V}; I_E=0$ $V_{CB}=160\text{V}; I_E=0, T_C=150^\circ\text{C}$			0.1 1.0	
		BUW64C	$V_{CB}=180\text{V}; I_E=0$ $V_{CB}=180\text{V}; I_E=0, T_C=150^\circ\text{C}$			0.1 1.0	
I_{EBO}	Emitter Cutoff Current		$V_{EB}=7\text{V}; I_C=0$			0.1	mA
h_{FE-1}	DC Current Gain		$I_C=0.2\text{A}; V_{CE}=2\text{V}$	30			
h_{FE-2}	DC Current Gain	BUW64A/B	$I_C=5\text{A}; V_{CE}=2\text{V}$	20			
		BUW64C	$I_C=4\text{A}; V_{CE}=2\text{V}$	20			

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