

isc Silicon NPN Power Transistors

BUW41/A/B

DESCRIPTION

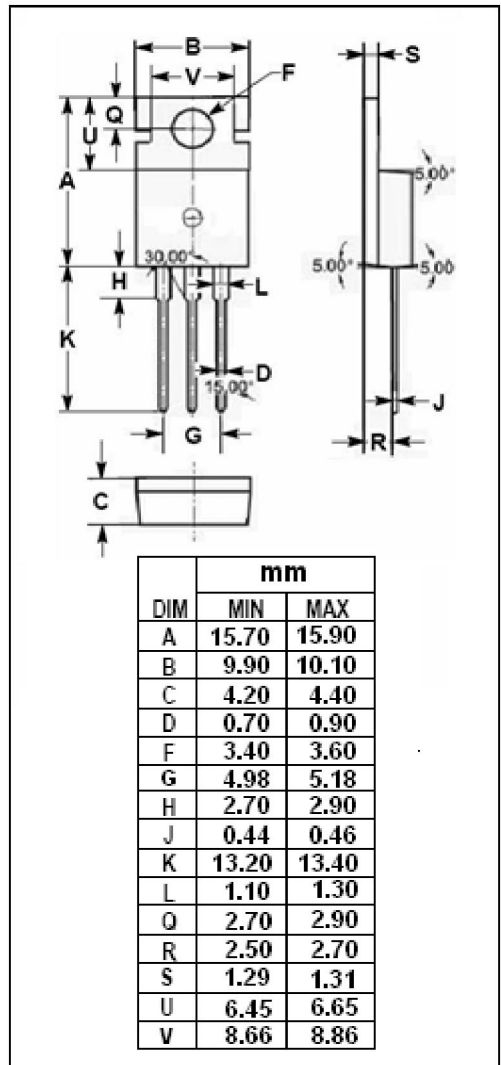
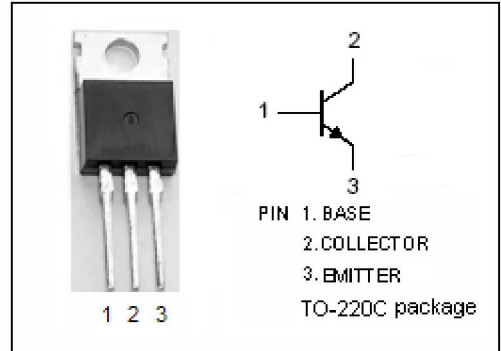
- Collector-Emitter Sustaining Voltage-
 : $V_{CEO(SUS)} = 300V(\text{Min})$ - BUW41
 = $350V(\text{Min})$ - BUW41A
 = $400V(\text{Min})$ - BUW41B
- High Switching Speed
- High Power Dissipation

APPLICATIONS

- Designed for high voltage and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CEV}	Collector-Emitter Voltage $V_{BE} = -1.5V$	BUW41	450	V
		BUW41A	550	
		BUW41B	650	
$V_{CEO(SUS)}$	Collector-Emitter Voltage	BUW41	300	V
		BUW41A	350	
		BUW41B	400	
V_{EBO}	Emitter-Base Voltage	6	V	
I_C	Collector Current-Continuous	5	A	
I_{CM}	Collector Current-Peak	8	A	
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	100	W	
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$	



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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	BUW41	$I_C=200\text{mA}; I_B=0$	300			V
		BUW41A		350			
		BUW41B		400			
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage		$I_E=1\text{mA}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C=5\text{A}; I_B=1\text{A}$ $I_C=5\text{A}; I_B=1\text{A}, T_C=150^\circ\text{C}$			1.0 2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		$I_C=5\text{A}; I_B=1\text{A}$			1.6	V
I_{CEV}	Collector Cutoff Current	BUW41	$V_{CE}=450\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=450\text{V}; V_{BE}=-1.5\text{V}, T_C=150^\circ\text{C}$			0.1 1.0	mA
		BUW41A	$V_{CE}=550\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=550\text{V}; V_{BE}=-1.5\text{V}, T_C=150^\circ\text{C}$			0.1 1.0	
		BUW41B	$V_{CE}=650\text{V}; V_{BE}=-1.5\text{V}$ $V_{CE}=650\text{V}; V_{BE}=-1.5\text{V}, T_C=150^\circ\text{C}$			0.1 1.0	
I_{EBO}	Emitter Cutoff Current		$V_{EB}=6\text{V}; I_C=0$			1.0	mA
h_{FE}	DC Current Gain		$I_C=5\text{A}; V_{CE}=3\text{V}$	10			
f_T	Current-Gain—Bandwidth Product		$I_C=0.5\text{A}; V_{CE}=10\text{V}$	15			MHz