

isc Silicon NPN Power Transistors

BUW41/A/B

DESCRIPTION

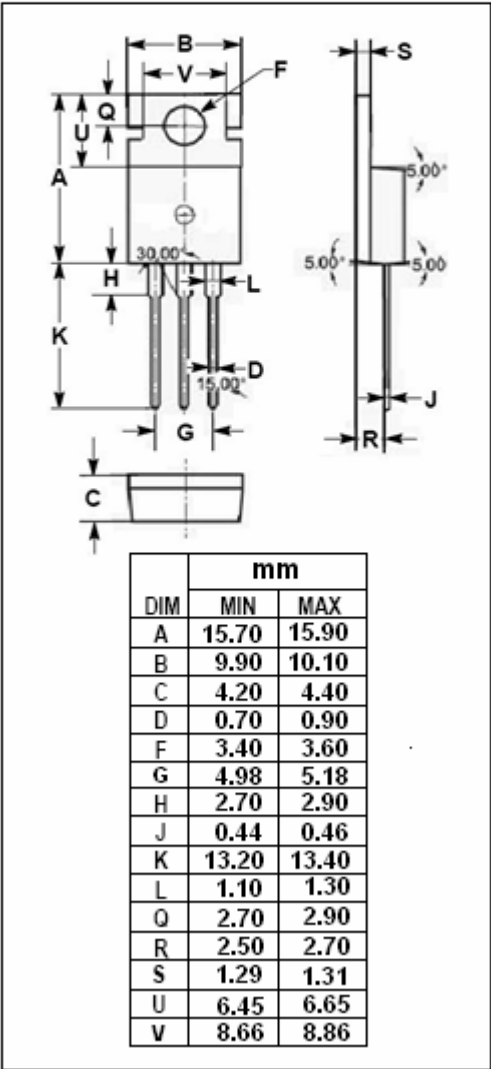
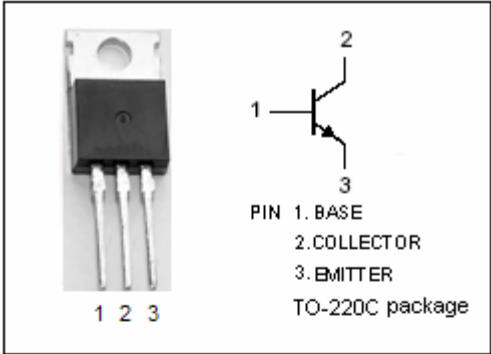
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 300V(\text{Min})$ - BUW41
= 350V(Min)- BUW41A
= 400V(Min)- BUW41B
- High Switching Speed
- High Power Dissipation

APPLICATIONS

- Designed for high voltage and switching applications.

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

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@ $T_C=25^{\circ}C$		100	W
T_J	Junction Temperature		150	$^{\circ}C$
T_{stg}	Storage Temperature		-65~150	$^{\circ}C$



isc Silicon NPN Power Transistors**BUW41/A/B****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