

isc Silicon NPN Power Transistors

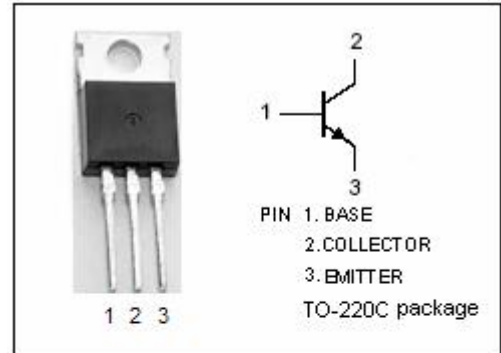
BUW41/A/B

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
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

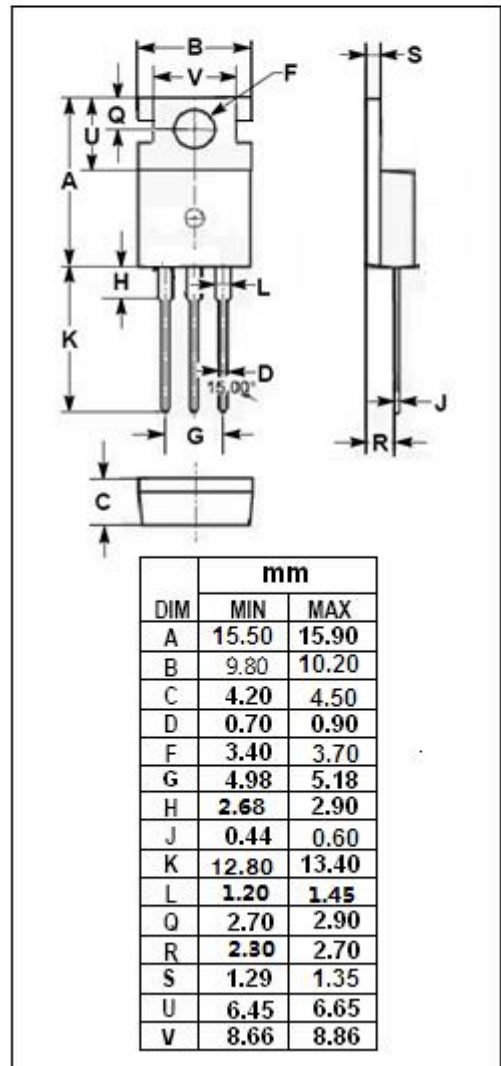
APPLICATIONS

- 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	8	A	
I_{CM}	Collector Current-Peak	10	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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BUW41/A/B

ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	BUW41	I _C = 50mA ; I _B = 0	300			V	
		BUW41A		350				
		BUW41B		400				
V _{(BR)EBO}	Emitter-Base Breakdown Voltage		I _E = 1mA ; I _C = 0	6			V	
V _{CE(sat)}	Collector-Emitter Saturation Voltage		I _C = 5A; I _B = 1A I _C = 5A; I _B = 1A, T _C = 150°C			1.0 2.0	V	
V _{BE(sat)}	Base-Emitter Saturation Voltage		I _C = 5A; I _B = 1A			1.6	V	
I _{CEV}	Collector Cutoff Current	BUW41	V _{CE} = 450V; V _{BE} = -1.5V V _{CE} = 450V; V _{BE} = -1.5V, T _C = 150°C			0.1 1.0	mA	
		BUW41A		V _{CE} = 550V; V _{BE} = -1.5V V _{CE} = 550V; V _{BE} = -1.5V, T _C = 150°C				0.1 1.0
		BUW41B		V _{CE} = 650V; V _{BE} = -1.5V V _{CE} = 650V; V _{BE} = -1.5V, T _C = 150°C				0.1 1.0
I _{EBO}	Emitter Cutoff Current		V _{EB} = 6V; I _C =0			1.0	mA	
h _{FE}	DC Current Gain		I _C = 5A ; V _{CE} = 3V	10		40		
f _T	Current-Gain—Bandwidth Product		I _C = 0.5A ; V _{CE} = 10V	15			MHz	

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