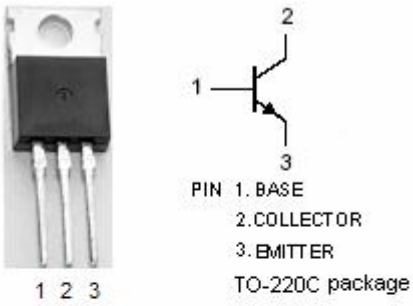
isc Silicon NPN Power Transistors — BUW41/A/B

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 300V(Min)- BUW41
  = 350V(Min)- BUW41A
  = 400V(Min)- BUW41B
- High Switching Speed
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

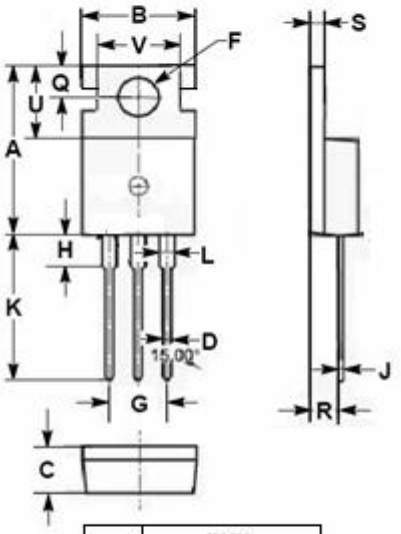


APPLICATIONS

- Designed for high voltage and switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃		100	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-65~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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℃			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℃			0.1 1.0	mA
		BUW41A	V_{CE}= 550V;V_{BE}= -1.5V V_{CE}= 550V;V_{BE}= -1.5V,T_C= 150℃			0.1 1.0	
		BUW41B	V_{CE}= 650V;V_{BE}= -1.5V V_{CE}= 650V;V_{BE}= -1.5V,T_C= 150℃			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