

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistors

BUW132/A

DESCRIPTION

- High Switching Speed
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 450V$ (Min)-BUW132
500V (Min)-BUW132A

APPLICATIONS

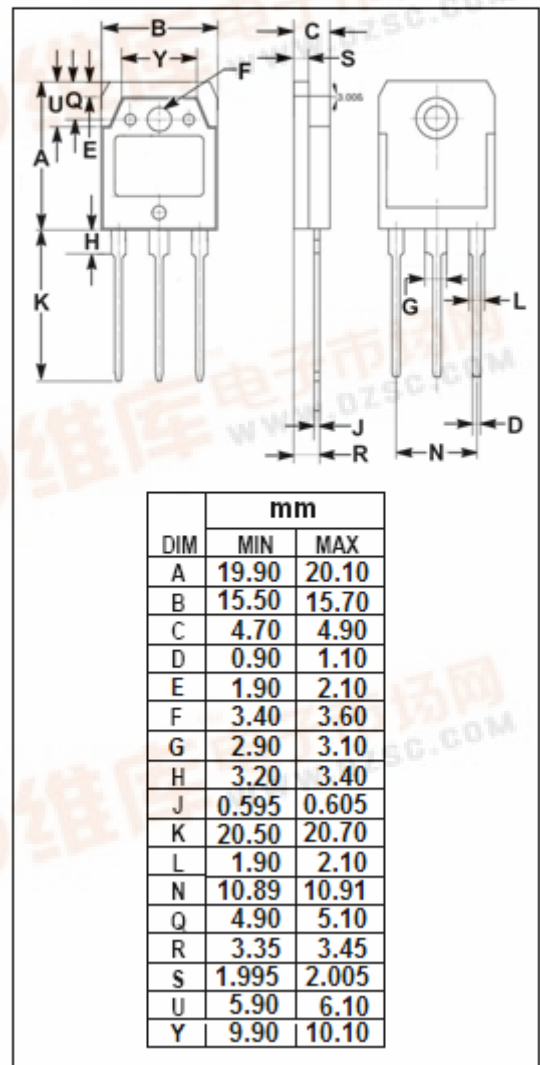
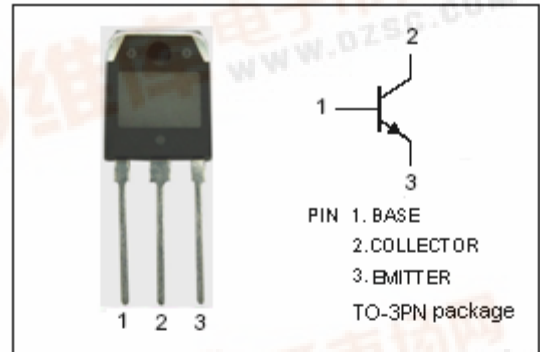
- Designed for use in very fast switching applications in inductive circuits.

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

SYMBOL	PARAMETER		MAX	UNIT
V_{CES}	Collector- Emitter Voltage($V_{BE}=0$)	BUW132	850	V
		BUW132A	1000	
V_{CEO}	Collector-Emitter Voltage	BUW132	450	V
		BUW132A	500	
V_{EBO}	Emitter-Base Voltage		6	V
I_C	Collector Current-Continuous		8	A
I_{CM}	Collector Current-Peak		16	A
I_B	Base Current		6	A
I_{BM}	Base Current-Peak		12	A
P_C	Collector Power Dissipation @ $T_c=25^\circ C$		125	W
T_j	Junction Temperature		200	$^\circ C$
T_{stg}	Storage Temperature Range		-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	BUW132	$I_C=0.1\text{A}$; $I_B=0$; $L=10\text{mH}$	450			V
		BUW132A		500			
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	BUW132	$I_C=3\text{A}$; $I_B=0.4\text{A}$			2.5	V
		BUW132A	$I_C=3\text{A}$; $I_B=0.6\text{A}$			1.0	
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	BUW132	$I_C=5\text{A}$; $I_B=0.66\text{A}$			3.0	V
		BUW132A	$I_C=5\text{A}$; $I_B=1\text{A}$			1.5	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BUW132	$I_C=5\text{A}$; $I_B=0.66\text{A}$			1.5	V
		BUW132A	$I_C=5\text{A}$; $I_B=1\text{A}$			1.5	
I_{CEV}	Collector Cutoff Current		$V_{CE}=V_{CESMmax}$; $V_{BE}=-1.5\text{V}$ $V_{CE}=V_{CESMmax}$; $V_{BE}=-1.5\text{V}$; $T_J=100^{\circ}\text{C}$			0.25 1.5	mA
I_{EBO}	Emitter Cutoff Current		$V_{EB}=6\text{V}$; $I_C=0$			1	mA
h_{FE}	DC Current Gain		$I_C=8\text{A}$; $V_{CE}=5\text{V}$	5			
C_{OB}	Output Capacitance		$I_E=0$; $V_{CB}=10\text{V}$; $f_{test}=1\text{kHz}$			350	pF

Switching Times , Resistive Load

t_{on}	Turn-On Time	$I_C=5\text{A}$; $I_{B1}=0.66\text{A}$; $I_{B2}=-1.3\text{A}$		0.35		μS
t_{stg}	Storage Time			1.5		μS
t_f	Fall Time			0.1		μS