

BUX98APW

HIGH VOLTAGE NPN POWER TRANSISTOR

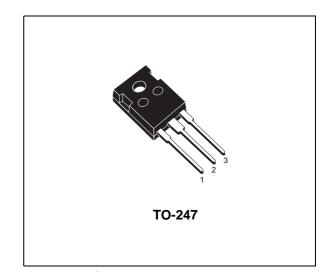
- STMicroelectronics PREFERRED SALESTYPE
- NPN TRANSISTOR
- HIGH VOLTAGE CAPABILITY
- HIGH CURRENT CAPABILITY
- FAST SWITCHING SPEED

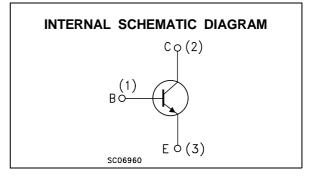
APPLICATIONS

- HIGH FREQUENCY AND EFFICENCY CONVERTERS
- LINEAR AND SWITCHING INDUSTRIAL EQUIPMENT

DESCRIPTION

The BUX98APW is a silicon Multiepitaxial Mesa NPN transistor in TO-247 plastic package. It is intended for use in industrial applications from single and three-phase mains operation.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit V	
V_{CER}	Collector-Emitter Voltage ($R_{BE} = \leq 10 \Omega$)	1000		
V_{CES}	Collector-Base Voltage (V _{BE} = 0)	1000	V	
V_{CEO}	Collector-Emitter Voltage $(I_B = 0)$	450	V	
V_{EBO}	Emitter-Base Voltage (I _C = 0)	7	V	
Ιc	Collector Current	24	А	
Ісм	Collector Peak Current (tp < 5 ms)	36	А	
Ι _Β	Base Current	5	А	
I _{BM}	Base Peak Current (t _p < 5 ms)	8	А	
P _{tot}	Total Power Dissipation at T _{case} < 25 °C	200	W	
T _{stg}	Storage Temperature	-65 to 150	°C	
Tj	Max Operating Junction Temperature	150	°C	

THERMAL DATA

R _{thj-case} Thermal Resistance Junction-case	Max	0.63	°C/W
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ELECTRICAL CHARACTERISTICS ($T_{case} = 25$ °C unless otherwise specified)

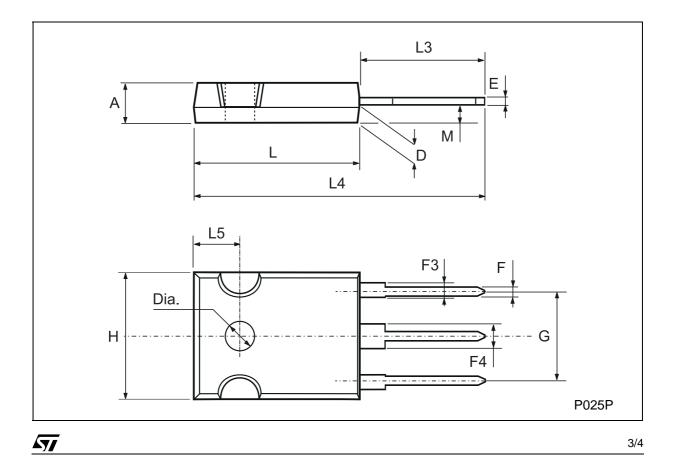
Symbol	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
I _{CER}	Collector Cut-off Current ($R_{BE} = 5 \Omega$)	V _{CE} = 1000 V V _{CE} = 1000 V	T _C = 125 °C			200 2	μA mA
I _{CES}	Collector Cut-off Current ($V_{BE} = 0$)	V _{CE} = 1000 V V _{CE} = 1000 V	T _C = 125 °C			200 2	μA mA
I _{CEO}	Collector Cut-off Current ($I_B = 0$)	V _{CE} = 450 V				2	mA
I _{EBO}	Emitter Cut-off Current $(I_C = 0)$	V _{EB} = 5 V				2	mA
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _C = 0)	I _E = 100 mA		7			V
V _{CEO(sus)} *	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 200 mA	L = 25 mH	450			V
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = 16 A	I _B = 3.2 A			1.2	V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C = 16 A	I _B = 3.2 A			1.5	V
t _{on} t _s t _f	RESISTIVE LOAD Turn-on Time Storage Time Fall Time	$V_{CC} = 150 V$ $I_{B1} = -I_{B2} = 3.2 A$	I _C = 16 A			1 3 0.8	μs μs μs

 \ast Pulsed: Pulse duration = 300 $\mu s,$ duty cycle = 1.5 %

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DIM.	mm		inch			
Divi.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	4.7		5.3	0.185		0.209
D	2.2		2.6	0.087		0.102
E	0.4		0.8	0.016		0.031
F	1		1.4	0.039		0.055
F3	2		2.4	0.079		0.094
F4	3		3.4	0.118		0.134
G		10.9			0.429	
Н	15.3		15.9	0.602		0.626
L	19.7		20.3	0.776		0.779
L3	14.2		14.8	0.559		0.582
L4		34.6			1.362	
L5		5.5			0.217	
М	2		3	0.079		0.118





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