



## NPN BUX98A

### HIGH VOLTAGE FAST SWITCHING

The BUX98A is silicon multiepitaxial NPN transistor in Jedec TO-3. They are intended and industrial applications from single and three-phase mains operation. Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
$V_{CEO}$	Collector-Emitter Voltage	$I_B = 0$	450	V
$V_{CBO}$	Collector-Base Voltage	$I_E = 0$	1000	V
$V_{EBO}$	Emitter-Base Voltage	$I_C = 0$	7	V
$I_C$	Collector Current		30	A
$I_{CM}$	Collector Peak Current	$t_p = <5ms$	60	A
$I_B$	Base Current		8	A
$I_{BM}$	Base Peak Current	$t_p = <5ms$	30	A
$P_t$	Total Power Dissipation	@ $T_C = 25^\circ$	250	W
$T_J$	Junction Temperature		200	$^\circ C$
$T_{Stg}$	Storage Temperature		-65 to +200	$^\circ C$

#### THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
$R_{thJC}$	Thermal Resistance, Junction to Case		0.7	$^\circ C/W$

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### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

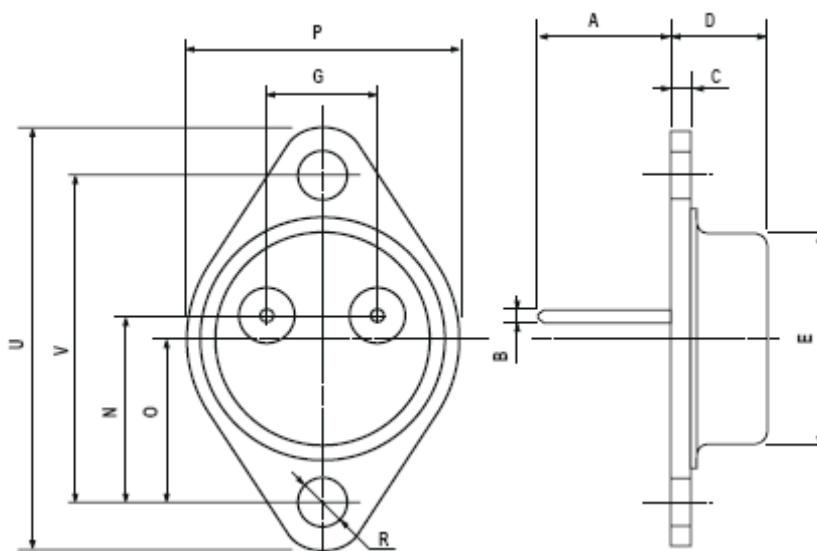
Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage (*)	$I_C = 200 \text{ mA}$	450	-	-	V
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage (*)	$I_C = 1 \text{ A}$ , $L = 2 \text{ mH}$ $R_{BE} = 10\Omega$	1000	-	-	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = V_{CEO}$ , $I_B = 0$	-	-	2	mA
$I_{CES}$	Collector Cutoff Current	$V_{CE} = 1000 \text{ V}$ , $V_{BE} = 0$	-	-	0.4	mA
		$V_{CE} = 1000 \text{ V}$ , $V_{BE} = 0$ $T_{CASE} = 125^\circ\text{C}$	-	-	4	
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 5.0 \text{ V}$ , $I_C = 0$	-	-	2	mA
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = 16 \text{ A}$ , $I_B = 3.2 \text{ A}$	-	-	1.5	V
		$I_C = 24 \text{ A}$ , $I_B = 5 \text{ A}$	-	-	5	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	$I_C = 16 \text{ A}$ , $I_B = 3.2 \text{ A}$	-	-	1.6	
$t_{on}$	Turn-on time	$I_C = 16 \text{ A}$ , $V_{CC} = 150 \text{ V}$ $I_{B1} = -I_{B2} = 3.2 \text{ A}$	-	-	1	$\mu\text{s}$
$t_s$	Storage time		-	-	3	
$t_f$	File time		-	-	0.8	

(\*) Pulse Duration = 300  $\mu\text{s}$ , Duty Cycle  $\leq 1.5\%$

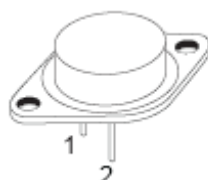
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### MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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