COMSET SEMICONDUCTORS

NPN BUX98

HIGH VOLTAGE FAST SWITCHING

The BUX98 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	$I_B = 0$	400	V
V_{CER}	Collector-Emitter Voltage	($R_{BE} \leq 10\Omega$)	350	V
V_{CES}	Collector-Base Voltage	$V_{BE} = 0$	850	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	7	
I_C	Collector Current		30	A
I_{CM}	Collector Peak Current	t_p = <5ms	60	A
I_{CP}	Collector Peak Current non Rep.	t_p = <20µs	80	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°	250	Watts
T_J	Junction Temperature		200	°C
T_{Stg}	Storage Temperature		-65 to +200	°C

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJC}	Thermal Resistance, Junction to Case	0.7	°C/W

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (*)	I_C =100 mA	700	-	-	V
I_{CER}	Collector Cutoff Current	V_{CE} = V_{CES} , R_{BE} = 10Ω	-	-	1	mA
		V_{CE} = V_{CES} , R_{BE} = 10Ω T_{CASE} = 125°C	-	-	8	
I_{CEO}	Collector Cutoff Current	V_{CE} = V_{CEO} , I_B =0A	-	-	2	mA
I_{CES}	Collector Cutoff Current	V_{CE} = V_{CES} , V_{BE} = 0	-	-	1	mA
		V_{CE} = V_{CES} , V_{BE} = 0 T_{CASE} = 125°C	-	-	6	
I_{EBO}	Emitter Cutoff Current	V_{EB} =5.0 V, I_C=0	-	-	2	mA
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C =12 A , I_B =3 A	-	-	1.5	V
		I_C =16 A , I_B =5 A	-	-	2	
		I_C =20 A , I_B =8 A	-	-	3	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	I_C =12 A , I_B =3 A	-	-	1.6	
		I_C =20 A , I_B =8 A	-	-	2	
t_{on}	Turn-on time	RESISTIVE LOAD I_C=8 A , I_B=1 A V_{CC}=150 V I_C=12 A , V_{CC}=250 V I_{B1} = -I_{B2} =3 A	-	0.5	1	µs
t_s	Storage time		-	1.5	3	
t_f	File time		-	0.2	0.8	

(*) Pulse Duration = 300 µs, Duty Cycle ≤ 1.5%

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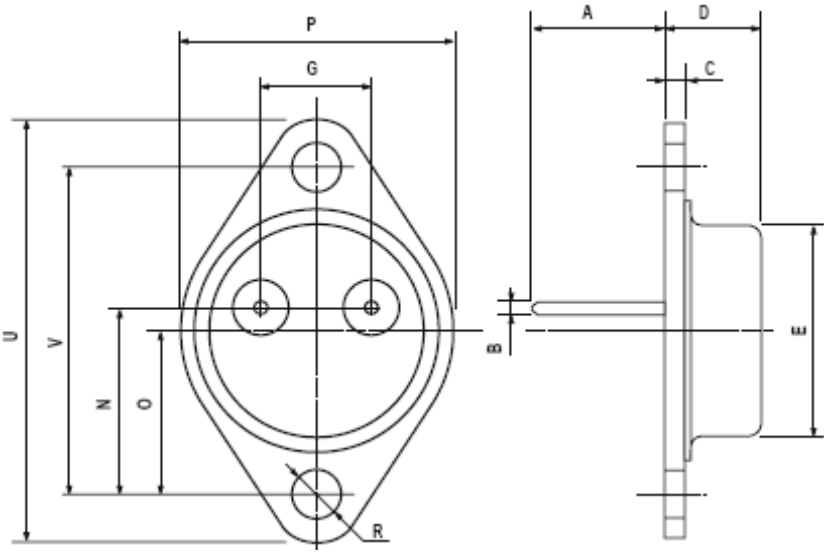
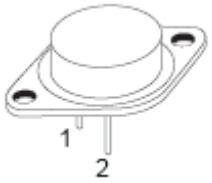
MECHANICAL DATA CASE TO-3

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



Revised September 2012