NPN BUX80

HIGH CURRENT, HIGH SPEED, HIGH POWER TRANSISTOR

The BUX80 is silicon multiepitaxial planar NPN transistor in Jedec TO-3.
They are intended for use in converters, inverters, switching regulators and motor control systems applications.
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	$R_{BE} = 50\Omega$	500	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	10	V
V_{CES}	Collector-Emitter Voltage	$V_{BE} = 0$	800	V
I_C	Collector Current		10	A
I_{CM}	Collector Peak Current	$t_p = 10ms$	15	A
I_B	Base Current		5	A
P_t	Total Power Dissipation	@ $T_C = 40°$	100	Watts
T_J	Junction Temperature		150	℃
T_{Stg}	Storage Temperature		-65 to +150	℃

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJC}	Thermal Resistance, Junction to Case	1.1	℃/W

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ELECTRICAL CHARACTERISTICS

TC=25℃ unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (*)	I_C=100 mA	400	-	-	V
V_{CER}	Collector-Emitter Sustaining Voltage (*)	I_C=100 mA R_{BE} = 50Ω	500	-	-	V
I_{EBO}	Emitter Cutoff Current	V_{CE}=10 V, I_C=0	-	-	10	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℃	-	-	3	
h_{FE}	DC Current Gain (*)	I_C=1.2 A, V_{CE}=5.0 V	-	30	-	-
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C=5 A, I_B=1 A	-	-	1.5	V
		I_C=8 A, I_B=2.5 A	-	-	3	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	I_C=5 A, I_B=1 A	-	-	1.4	
		I_C=8 A, I_B=2.5 A	-	-	1.8	
t_{on}	Turn-on time	I_C=5 A, I_B=1 A V_{CC}=250 V	-	-	0.5	µs
t_s	Storage time	I_C=5 A, V_{CC}=250 V I_{B1} =1A, $-I_{B2}$ =2 A	-	-	3.5	
t_f	File time	I_C=5 A, V_{CC}=-250 V I_{B1} =1A, $-I_{B2}$ =2 A	-	-	0.5	

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

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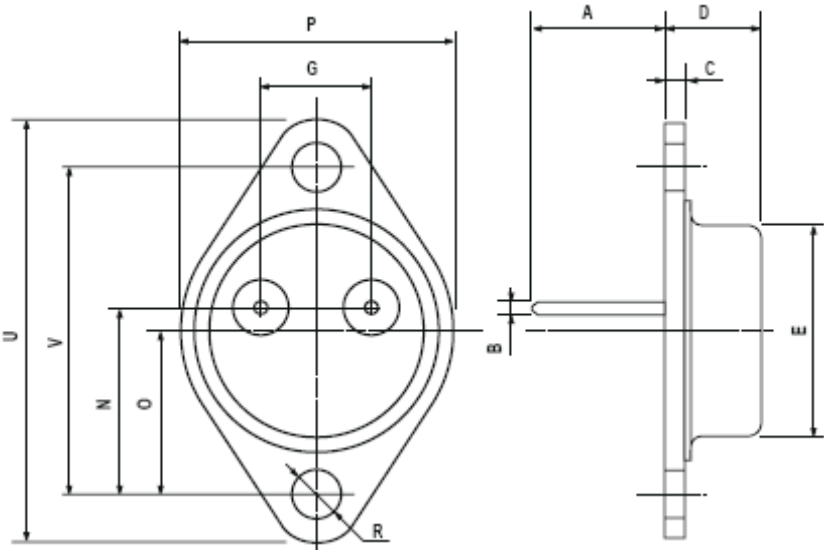
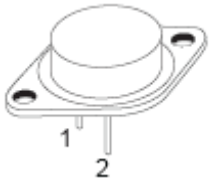
MECHANICAL DATA CASE TO-3

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



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