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.

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	°C
T_{Stg}	Storage Temperature		-65 to +150	°C

THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage (1)	I_C=100 mA	400	-	-	V
V_{CER}	Collector-Emitter Sustaining Voltage (1)	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°C	-	-	3	

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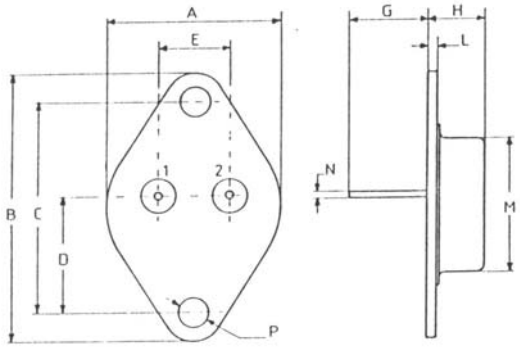
h_{FE}	DC Current Gain (1)	I_C=1.2 A , V_{CE}=5.0 V	-	30	-	-
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (1)	I_C=5 A , I_B=1 A	-	-	1.5	V
		I_C=8 A , I_B=2.5 A	-	-	3	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (1)	I_C=5 A , I_B=1 A	-	-	1.4	
		I_C=8 A , I_B=2.5 A	-	-	1.8	

Symbol	Ratings	Test Condition(s)Sec	Min	Typ	Mx	Unit
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	

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

MECHANICAL DATA CASE TO-3

DIMENSIONS		
	mm	inches
A	25,51	1,004
B	38,93	1,53
C	30,12	1,18
D	17,25	0,68
E	10,89	0,43
G	11,62	0,46
H	8,54	0,34
L	1,55	0,6
M	19,47	0,77
N	1	0,04
P	4,06	0,16



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector

Information furnished is believed to be accurate and reliable. However, CS assumes no responsability for the consequences of use of such information nor for errors that could appear.
Data are subject to change without notice.