NPN BUX48

VERY HIGH VOLTAGE POWER TRANSISTOR

The BUX48 is silicon multiepitaxial mesa NPN transistors in Jedec TO-3.
They are a high voltage, high speed and they are intended for use in converters, inverter, switching regulator, motor control systems.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage	I_B = 0	400	V
V_{CESM}	Collector-Emitter Voltage	V_{BE} = 0	850	V
V_{EBO}	Emitter-Base Voltage	I_C = 0	7.0	V
I_C	Collector Current		15	A
I_{CM}	Collector Peak Current		30	A
I_B	Base Current		4	A
I_{BM}	Base Current-Peak Value		20	A
P_t	Total Power Dissipation	@ T_C = 25°	175	Watts
T_J	Junction Temperature		200	°C
T_{Stg}	Storage Temperature		-65 to +200	°C

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ\text{-}mb}$	Thermal Resistance, Junction to Mounting Base	1.0	K/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=200 mA , L=25 mH	400	-	-	V
$V_{EB0(SUS)}$	Emitter-Base Breakdown Voltage (1)	I_C=0A , I_B=50 mA	7	-	30	V
I_{CER}	Collector Cutoff Current	V_{CE}= V_{CESM}= 850 V , R_{BE}= 10 Ω	-	-	0.5	mA
		V_{CE}= V_{CESM}= 850 V , R_{BE}= 10 Ω, T_j =125°C	-	-	4	
I_{EBO}	Emitter Cutoff Current	V_{EB}=5.0 V, I_C=0	-	-	1	mA

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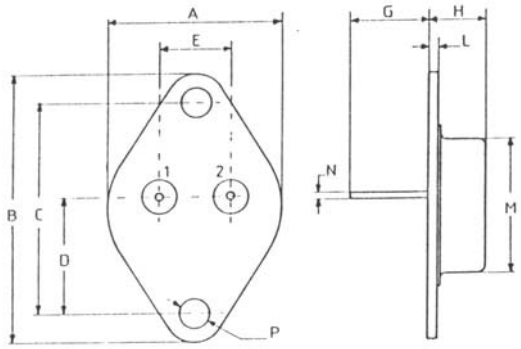
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (1)	I_C=10 A , I_B=2 A	-		1.5	V
		I_C=15 A , I_B=3 A	-		5	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (1)	I_C=10 A , I_B=2 A	-		1.6	

(1) Pulse Duration = 300 μs, Duty Cycle <= 2%

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