



BUX84

MULTIEPITAXIAL MESA NPN

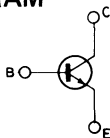
HIGH VOLTAGE SWITCH

The BUX84, is a multiepitaxial mesa NPN transistor, intended for use in converters inverters, switching regulators, motor control systems and switching applications.
It is mounted in Jedec TO-220 plastic package.

ABSOLUTE MAXIMUM RATINGS

V_{CES}	Collector-emitter voltage ($V_{BE} = 0$)	800	V
V_{CEO}	Collector-emitter voltage ($I_B = 0$)	400	V
I_C	Collector current	2	A
I_{CM}	Collector peak current	3	A
I_B	Base current	0.75	A
I_{BM}	Base peak current	1	A
P_{tot}	Total power dissipation at $T_{case} \leq 25^\circ C$	40	W
T_{stg}	Storage temperature	-65 to 150	$^\circ C$
T_j	Junction temperature	150	$^\circ C$

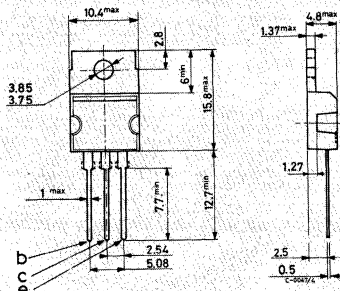
INTERNAL SCHEMATIC DIAGRAM



MECHANICAL DATA

Dimensions in mm

Collector connected to tab.



TO-220

THERMAL DATA

$R_{th\ j-case}$	Thermal resistance junction-case	max. 2.5 °C/W
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ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless ohterwise specified)

Parameter	Test conditions	Min.	Typ.	Max.	Unit
I_{CES} Collector cutoff current ($V_{BE} = 0$)	$V_{CE} = V_{CES}$ $V_{CE} = V_{CES}$ $T_J = 125^{\circ}C$			200 1.5	μA mA
I_{EBO} Emitter cutoff current ($I_C = 0$)	$V_{EB} = 5V$			1	mA
$V_{CEO(sus)}$ * Collector-emitter sustaining voltage	$I_C = 100mA$ $I_B = 0$ $L = 25mH$	400			V
$V_{CE(sat)}$ * Collector-emitter saturation voltage	$I_C = 0.3A$ $I_B = 30mA$ $I_C = 1A$ $I_B = 0.2A$			1.5 3	V V
$V_{BE(sat)}$ * Base-emitter saturation voltage	$I_C = 1A$ $I_B = 0.2A$			1.1	V
h_{FE} * DC current gain	$V_{CE} = 5V$ $I_C = 0.1A$		50		—
t_{on} Turn-on time	$I_C = 1A$ $V_{CC} = 250V$ $I_B = 0.2A$ $-I_B = 0.4A$	300	500		ns
t_s Storage time		1	3.5		μs
t_f Fall time		0.1	1.4		μs

* Pulsed: pulse duration = 300 μs , duty cycle = 1%.