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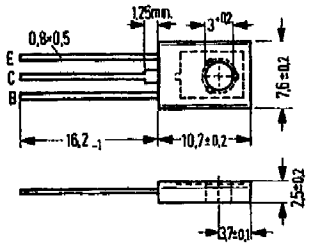
BUX 86
BUX 87

BUX 86 and BUX 87 are NPN silicon epibase power switching transistors in TO 126 plastic package (12 A 3 DIN 41869). They are outstanding for their short switching times and high dielectric strength and are particularly suitable for use in switching power supplies of TV sets. The collector is electrically connected to the metallic mounting area.



Approx. weight 0.5 g Dimensions in mm

Maximum ratings		BUX 86	BUX 87	
Collector-emitter voltage	V_{CES}	800	1000	V
Collector-emitter voltage	V_{CEO}	400	450	V
Collector current	I_C	0.5	0.5	A
Collector peak current ($t_p \leq 2$ ms)	I_{CM}	1.0	1.0	A
Base current	I_B	0.2	0.2	A
Base peak current	I_{BM}	0.3	0.3	A
Negative base peak current at turning off	$-I_{BM}$	0.3	0.3	A
Storage temperature range	T_{stg}	−65 to +150		°C
Junction temperature	T_j	150	150	°C
Total power dissipation ($T_{case} \leq 60$°C)	P_{tot}	20	20	W
Thermal resistance				
Junction to mounting area	R_{thJC}	≤4.5	≤4.5	K/W

Static characteristics (T_{amb} = 25 °C)		**BUX 86**	**BUX 87**	
Collector-emitter breakdown voltage (I_C = 100 mA; I_B = 0; L = 25 mH)	$V_{(BR)CEO}$	≥400	≥450	V
Collector cutoff current				
(V_{CES} = 800 V)	I_{CES}	<0.1	–	mA
(V_{CES} = 800 V; T_j = 150 °C)	I_{CES}	<1	–	mA
(V_{CES} = 1000 V)	I_{CES}	–	<0.1	mA
(V_{CES} = 1000 V; T_j = 150 °C)	I_{CES}	–	<1	mA
Emitter cutoff current (V_{EBO} = 5 V)	I_{EBO}	<1	<1	mA
DC current gain (V_{CE} = 5 V; I_C = 50 mA)	h_{FE}	50	50	–
Collector-emitter saturation voltage				
(I_C = 100 mA; I_B = 10 mA)	V_{CEsat}	<1.5	<1.5	V
(I_C = 200 mA; I_B = 20 mA)	V_{CEsat}	<3	<3	V
Base-emitter saturation voltage				
(I_C = 200 mA; I_B = 20 mA)	V_{BEsat}	<1	<1	V
Dynamic characteristics (T_{amb} = 25 °C)				
Transition frequency				
(V_{CE} = 10 V; I_C = 50 mA; f = 1 MHz)	f_T	20	20	MHz
Swicthing times				
(V_{CC} = 250 V; I_C = 200 mA; I_B = 20 mA; $-I_B$ = 40 mA)				
Turn-on time	t_{on}	0.25 (<0.5)	0.25 (<0.5)	µs
Storage time	t_s	2 (<3.5)	2 (<3.5)	µs
Fall time[1)]	t_f	0.4	0.4	µs