

**BUX46
 BUX46A**

SILICON DIFFUSED POWER TRANSISTORS

High-voltage, high-speed, glass-passivated npn power transistors in a TO-3 envelope, intended for use in converters, inverters, switching regulators, motor control systems etc.

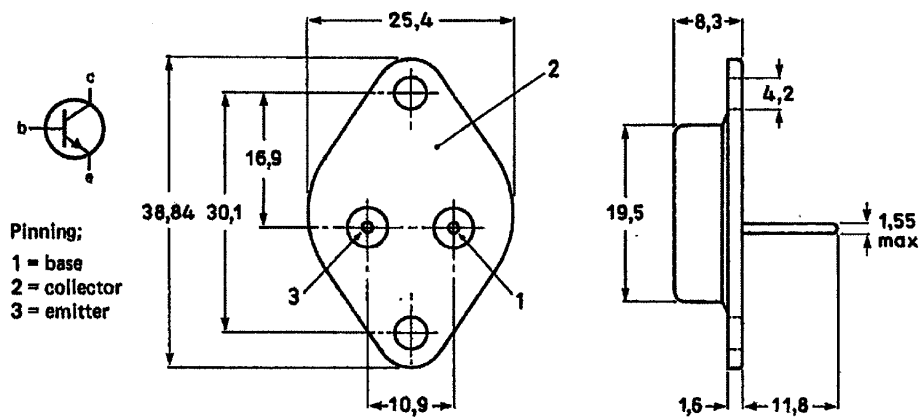
QUICK REFERENCE DATA

		BUX46	BUX46A
Collector-emitter voltage (peak value; $V_{BE} = 0$)	V_{CESM} max.	850	1000 V
Collector-emitter voltage (open base)	V_{CEO} max.	400	450 V
Collector-emitter saturation voltage	V_{CEsat} max.	1,5	V
Collector current (DC)	I_C max.	3,5	A
Collector current (peak value)	I_{CM} max.	5	A
Total power dissipation up to $T_{mb} = 25^\circ C$	P_{tot} max.	85	W
Fall time (resistive load)	t_f max.	0,8	μs

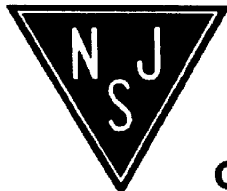
MECHANICAL DATA

Dimensions in mm

Fig. 1 TO-3.



Collector connected to case.



Quality Semi-Conductors

		BUX46	BUX46A	
Collector-emitter voltage (peak value; $V_{BE} = 0$)	V_{CESM}	max. 850	1000	V
Collector-emitter voltage ($R_{BE} \leq 10 \Omega$)	V_{CER}	max. 850	1000	V
Collector-emitter voltage (open base)	V_{CEO}	max. 400	450	V
Collector current (DC)	I_C	max. 3,5		A
Collector current (peak value) $t_p < 2$ ms	I_{CM}	max. 5		A
Base current (DC)	I_B	max. 1,5		A
Base current (peak value); $t_p < 2$ ms	I_{BM}	max. 3		A
Total power dissipation up to $T_{mb} = 25$ °C	P_{tot}	max. 85		W
Storage temperature range	T_{stg}	-65 to +175		°C
Junction temperature	T_j	max. 175		°C
THERMAL RESISTANCE				
From junction to mounting base	$R_{th j-mb}$	=	1,75	K/W
CHARACTERISTICS				
$T_j = 25$ °C unless otherwise specified				
Collector cut-off current*	I_{CER}	max. 0,3		mA
$V_{CE} = V_{CESMmax}; R_{BE} \leq 10 \Omega$	I_{CER}	max. 2		mA
$V_{CE} = V_{CESMmax}; R_{BE} \leq 10 \Omega; T_j = 125$ °C				
Emitter cut-off current	I_{EBO}	max. 1		mA
$I_C = 0; V_{EB} = 5$ V				
Saturation voltages	V_{CEsat}	max. 5		V
$I_C = 3,5$ A; $I_B = 0,7$ A	V_{CEsat}	max. 1,5		V
$I_C = 2,5$ A; $I_B = 0,5$ A	V_{BEsat}	max. 1,3		V
Collector-emitter sustaining voltage	$V_{CEO_{sust}}$	min. 400	450	V
$I_C = 200$ mA; $I_B = 0; L = 25$ mH				
Collector-emitter cut-off current	I_{CEX}	max. 0,1		mA
$V_{CE} = V_{CESMmax}; V_{BE} = -2,5$ V	I_{CEX}	max. 1		mA
$V_{CE} = V_{CESMmax}; V_{BE} = -2,5$ V; $T_j = 124$ °C				
Emitter-base breakdown voltage	$V_{(BR)EBO}$	max. 30		V
$I_C = 0; I_E = 0,5$ A				
Second breakdown collector current	$I_{(SB)C}$	min. 0,5		A
$V_{CE} = 70$ V; $t = 1$ sec.				