

Technical Data

TRANSISTOR

maximum ratings

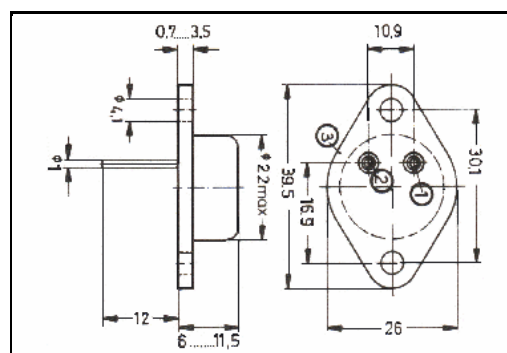
Voltage, Collector to Base (VCBO)	1000.0	V	NO.	BUX47A
Voltage, Collector to Emitter (VCE)	450.0	V	TYPE	NPN
Voltage, Emitter to Base (VEBO)	7.0	V		SWITCH-MODE
Collector Current (IC)	9.0	A		
Base Current (IB)	3.0	A	CASE	TO-3
Max. Power Dissipation (PT) at TC = 25 °C	125.0	W		
Max. Thermal Resistance (Rth J-C)	1.4	°C/W		
Max. Junction Temperature (TJ)	200.0	°C		

PERFORMANCE CHARACTERISTICS at $T_c = 25^\circ\text{C}$, unless otherwise noted

NO.	SYMBOL	CONDITIONS	MIN.	MAX.	UNITS
1.	BVCEO	IC = 0.2 A (1)	450.0	-	V
2.	BVEBO	IE = 0.05 A (1)	7.0	30.0	V
3.	ICEX	VCE = 1.0 kV, VEB = 2.5 V	-	0.15	mA
4.	ICEX	VCE = 1.0 kV, VEB = 2.5 V, TJ = 125.0° C	-	1.5	mA
5.	ICER	VCE = 1.0 kV, RBE = 10.0 Ω	-	0.4	mA
6.	ICER	VCE = 1.0 kV, RBE = 10.0 Ω, TJ = 125.0° C	-	3.0	mA
7.	IEBO	VEB = 5.0 V	-	1.0	mA
8.	VCE(SAT)	IC = 5.0 A, IB = 1.0 A (1)	-	1.5	V
9.	VCE(SAT)	IC = 8.0 A, IB = 1.6 A (1)	-	5.0	V
10.	VBE(SAT)	IC = 5.0 A, IB = 1.0 A (1)	-	1.6	V
11.	fT	IC = 1.0 A, VCE = 10.0 V, f = 1.0 MHz (2)	5.0	-	MHz
12.	Cobo	VCB = 10.0 V, f = 1.0 MHz	-	250.0	pF
13.	t(ON)	VCC = 150.0 V, IC = 5.0 A, IB = 1.0 A	-	1.0	μs
14.	ts	VCC = 150.0 V, IC = 5.0 A, IB = 1.0 A	-	3.0	μs
15.	tf	VCC = 150.0 V, IC = 5.0 A, IB = 1.0 A	-	0.8	μs
16.	tsv	VCC = 300.0V, VBB = -5.0V, IC = 5.0A, IB=1.0A (2)	-	3.0	μs
17.	tfi	VCC = 300.0V, VBB = -5.0V, IC = 5.0A, IB=1.0A (2)	-	0.08	μs
18.					
19.					
20.					

Notes (1)pulse-tested $t_p \leq 300 \mu\text{s}$, duty cycle $\leq 2\%$
(2)typical value

DIMENSIONS
in mm



Marking BUX47A
Customer GENERAL PURPOSE