

BUV26 – BUV26A

SILICON POWER TRANSISTORS

High-speed, NPN power transistors in a TO-220 envelope. They are intended for fast switching applications such as high frequency and efficiency converters, switching regulators and motor control.

Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value		Unit
			BUV26	BUV26A	
V_{CBO}	Collector-Base Voltage	$I_E = 0$	180	200	V
V_{CEO}	Collector-Emitter Voltage	$I_B = 0$	90	100	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	7	5	V
I_C	Collector Current		14		A
I_{CM}	Collector Peak Current	$t_p = 10ms$	25		A
I_B	Base Current		4		A
I_{BM}	Base Current	$t_p = 10ms$	6		A
P_t	Power Dissipation		85	65	W
T_j	Junction Temperature		150		°C
T_{stg}	Storage Temperature range		-65 to 150		

Limiting values in accordance with the Absolute Maximum System (IEC 134)

THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJ-mb}	From junction to mounting base	BUV26	1.76	°C/W
		BUV26A		

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Value			Unit	
			Min	Typ	Max		
I_{CEX}	Collector Cutoff Current (*)	$V_{CE} = V_{CESMax}$ $V_{BE} = 1.5V, T_J = 125^\circ C$	BUV26	-	-	1	mA
			BUV26A	-	-	1	
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5 V, I_C = 0$	BUV26	-	-	1	mA
			BUV26A	-	-	1	
$V_{CE0sust}$	Collector-Emitter Sustaining Voltage	$I_B = 0, I_C = 0.2 A$ $L = 25 mH$	BUV26	90	-	-	V
			BUV26A	100	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage	$I_C = 6 A, I_B = 600 mA$ $I_C = 5 A, I_B = 500 mA$ $I_C = 12 A, I_B = 1.2 A$ $I_C = 10 A, I_B = 1 A$	BUV26	-	-	0.6	V
			BUV26A	-	-	0.5	
			BUV26	-	-	1.5	
			BUV26A	-	-	1	
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage	$I_C = 6 A, I_B = 600 mA$ $I_C = 5 A, I_B = 500 mA$ $I_C = 12 A, I_B = 1.2 A$ $I_C = 10 A, I_B = 1 A$	BUV26	-	-	1.2	V
			BUV26A	-	-	1.2	
			BUV26	-	-	2	
			BUV26A	-	-	1.5	

SWITCHING TIMES

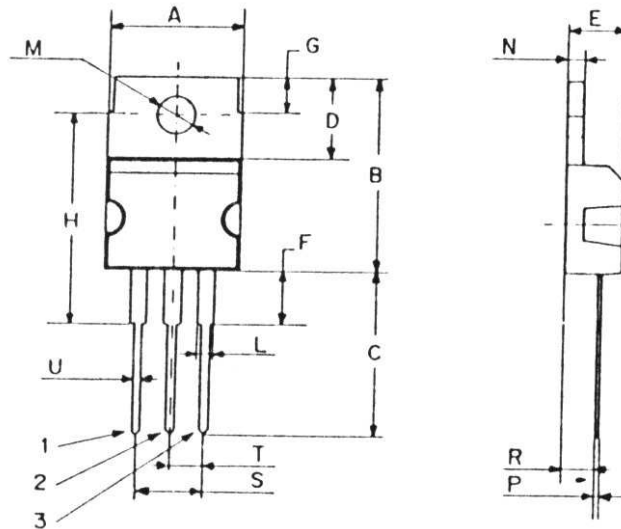
Symbol	Ratings	Test Condition(s)	Value			Unit	
			Min	Typ	Max		
t_{on}	turn-on time	For BUV26 $I_C = 12 A, V_{CC} = 50 V$	BUV26	-	0.4	0.8	μs
			BUV26A	-	0.5	1.2	
t_{off}	turn-off time	$I_{B1} = 1.2 A, I_{B2} = 2 A$ For BUV26A	BUV26	-	0.5	1.2	
			BUV26A	-	0.5	1.2	
t_f	Fall time	$I_C = 10 A, V_{CC} = 50 V$ $I_{B1} = 1 A, I_{B2} = 2 A$	BUV26	-	0.12	0.4	
			BUV26A	-	0.12	0.4	

(*) Measured with a half-sinewave voltage (curve tracer).

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MECHANICAL DATA CASE TO-220

DIMENSIONS (mm)		
	Min.	Max.
A	9,90	10,30
B	15,65	15,90
C	13,20	13,40
D	6,45	6,65
E	4,30	4,50
F	2,70	3,15
G	2,60	3,00
H	15,75	17,15
L	1,15	1,40
M	3,50	3,70
N	-	1,37
P	0,46	0,55
R	2,50	2,70
S	4,98	5,08
T	2,49	2,54
U	0,70	0,90



Pin 1 :	Base
Pin 2 :	Collector
Pin 3 :	Emitter
Package	Collector

Revised August 2012

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