

## BUV28 – BUV28A

### NPN SILICON POWER TRANSISTORS

High-speed, 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
			BUV28	BUV28A	
$V_{CES}$	Collector-Emitter Voltage	$V_{BE} = 0$	400	450	V
$V_{CEO}$	Collector-Emitter Voltage	$I_B = 0$	200	225	V
$V_{EBO}$	Emitter-Base Voltage	$I_C = 0$	5		V
$I_C$	Collector Current		10		A
$I_{CM}$	Collector Peak Current	$t_p = 10ms$	20		A
$I_B$	Base Current		2		A
$I_{BM}$	Base Peak Current		4		A
$P_t$	Power Dissipation		65		W
$T_j$	Junction Temperature		150		°C
$T_{stg}$	Storage Temperature range		-65 to 150		

#### THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
$R_{thJ-mb}$	From junction to mounting base	BUV28	1.785	°C/W
		BUV28A		

## BUV28 – BUV28A

### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Value			Unit	
			Min	Typ	Max		
$I_{CEX}$	Collector Cutoff Current	$V_{CE}=V_{CESMax}$ $V_{BE}= -1.5V, T_J= 125^{\circ}C$	BUV28	-	-	1	mA
			BUV28A				
$I_{CER}$	Collector Cutoff Current	$V_{CE}=V_{CESMax}$ $R_{BE}= 50 \Omega, T_J= 125^{\circ}C$	BUV28	-	-	3	mA
			BUV28A				
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5 V, I_C= 0$	BUV28	-	-	1	mA
			BUV28A				
$V_{CEO_{sust}}$	Collector-Emitter Sustaining Voltage	$I_C= 0.2 A, I_B= 0$ $L = 25 mH$	BUV28	200	-	-	V
			BUV28A	225	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage	$I_C= 3 A, I_B= 300 mA$ $I_C= 2 A, I_B= 200 mA$ $I_C= 6 A, I_B= 600 mA$ $I_C= 4 A, I_B= 400 mA$	BUV28	-	-	0.7	V
			BUV28A	-	-	0.7	
			BUV28	-	-	1.5	
			BUV28A	-	-	1.5	
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage	$I_C= 6 A, I_B= 600 mA$ $I_C= 4 A, I_B= 400 mA$	BUV28	-	-	2	V
			BUV28A	-	-	2	

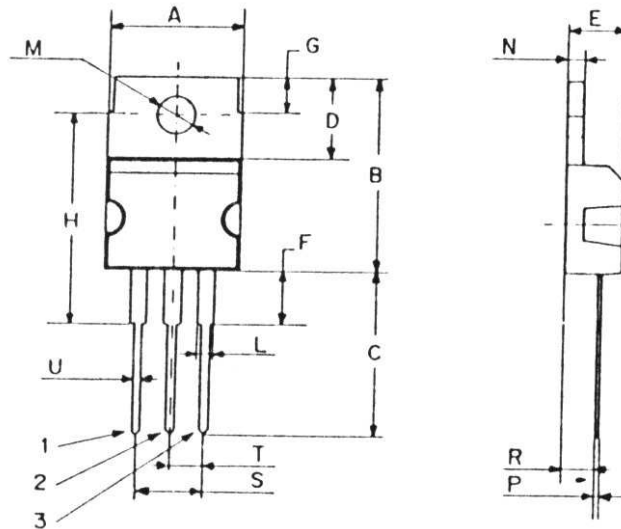
### SWITCHING TIMES

Symbol	Ratings	Test Condition(s)	Value			Unit	
			Min	Typ	Max		
$t_{on}$	turn-on time	<b>For BUV28</b> $I_C= 6 A, V_{CC}= 50 V$ $I_{B1}= 0.6 A$	BUV28	-	0.3	1	$\mu s$
			BUV28A				
$T_{stg}$	Storage time	$I_{B2}= -1.2 A$ <b>For BUV28A</b> $I_C= 4 A, V_{CC}= 50 V$	BUV28	-	0.5	1.5	
			BUV28A				
$t_f$	Fall time	$I_{B1}= 0.4 A$ $I_{B2}= -.8 A$	BUV28	-	0.1	0.25	
			BUV28A				

## BUV28 – BUV28A

### 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 October 2014

Information furnished is believed to be accurate and reliable. However, Comset Semiconductors assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. Data are subject to change without notice. Comset Semiconductors makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Comset Semiconductors assume any liability arising out of the application or use of any product and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Comset Semiconductors' products are not authorized for use as critical components in life support devices or systems.