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		℃
T_{stg}	Storage Temperature range		-65 to 150		

THERMAL CHARACTERISTICS

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

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ELECTRICAL CHARACTERISTICS

TC=25℃ 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℃	BUV28	-	-	1	mA
			BUV28A				
I_{CER}	Collector Cutoff Current	$V_{CE}=V_{CESMax}$ R_{BE}= 50 Ω, T_J= 125℃	BUV28	-	-	3	mA
			BUV28A				
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5 V, I_C= 0	BUV28	-	-	1	mA
			BUV28A				
$V_{CEOsust}$	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	BUV28	-	-	0.7	V
		I_C= 2 A, I_B= 200 mA	BUV28A	-	-	0.7	
		I_C= 6 A, I_B= 600 mA	BUV28	-	-	1.5	
		I_C= 4 A, I_B= 400 mA	BUV28A	-	-	1.5	
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage	I_C= 6 A, I_B= 600 mA	BUV28	-	-	2	V
		I_C= 4 A, I_B= 400 mA	BUV28A	-	-	2	

SWITCHING TIMES

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

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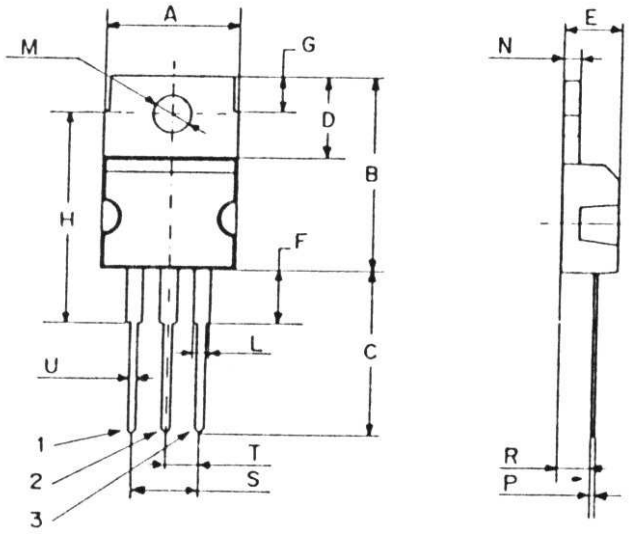
MECHANICAL DATA CASE TO-220

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

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