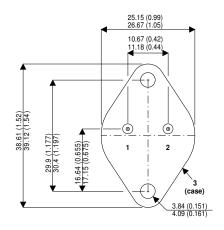
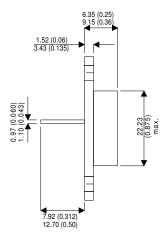


BUV42A

MECHANICAL DATA

Dimensions in mm (inches)





Hermetically Sealed TO3 Metal Package

Bipolar NPN Device in a

FEATURES

- Low V_{CE(sat)}
- Fast Switching
- Low On-State Voltage Drop

APPLICATIONS

Power Switching Circuits.

TO3 (TO204AA)

Pin 1 = Base Pin 2 = Emitter Case = Collector

ABSOLUTE MAXIMUM RATINGS

$T_{CASE} = 2$	5°C unless otherwise stated	
V _{CEX}	Collector - Emitter Voltage ($V_{BE} = -1.5V$)	400V
$V_{\sf CEO}$	Collector - Emitter Voltage	300V
V_{EBO}	Emitter – Base Voltage	7V
I_{C}	Continuous Collector Current	12A
I_{B}	Base Current	2.5A
P_{tot}	Total Power Dissipation at T _{case} = 25 ℃	120W
T_{stg}	Storage Temperature	-65 to 200 ℃

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.



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THERM	AL CHARACTERISTICS	Max.	Unit
R _{th} j-case	Thermal resistance to case	1.46	°C/W

ELECTRICAL CHARACTERISTICS (T_{case}=25 °C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
I _{CER}	Collector Cutoff Current	V _{CE} = 400V	$R_{BE} = 10\Omega$			0.5	
			T _j = 100℃			2.5	
I _{CEV}	Collector Cut-Off Current	V _{CE} = 400V	$V_{BE} = -1.5V$			0.5	mA
			T _j = 100 ℃			2	
I _{EBO}	Emitter Cut-Off Current	V _{EB} = 5V	I _C = 0			1	
V _{(BR)CEO} *	Collector to Emitter Breakdown Voltage	I _C = 0.2A	L = 25mH	300			
$V_{(BR)EBO}$	Emitter to Base Breakdown Voltage	$I_E = 50 \text{mA}$	$I_C = 0$	7			
V _{CE(sat)} *	Collector to Emitter Saturation Voltage	$I_C = 4A$	$I_B = 0.4A$			0.9	V
			T _j = 100 ℃			1.9	-
V _{BE(sat)} *	Base to Emitter Saturation Voltage	$I_C = 4A$	$I_B = 0.4A$			1.3	
			T _j = 100 ℃			1.5	

DYNAMIC CHARACTERISTICS (T_{case}=25 °C unless otherwise stated)

C_obo	Output Capacitance	$I_E = 0A$	$V_{CB} = 10V$	100	рF
Oobo	Output Capacitarice	f = 1.0MHz		100	Pi
t _r	Rise Time	V _{CC} = 250V	I _C =6A	0.4	
t _s	Storage Time	I _{B1} =-I _{B2} =0.75A		1.6	μs
t _f	Fall Time			0.3	

^{*} Pulse test $t_p = 300 \mu s$, $\delta < 2\%$

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