

## BUV20

### THERMAL DATA

R <sub>thj-case</sub>	Thermal Resistance Junction-case	Max	0.7	°C/W
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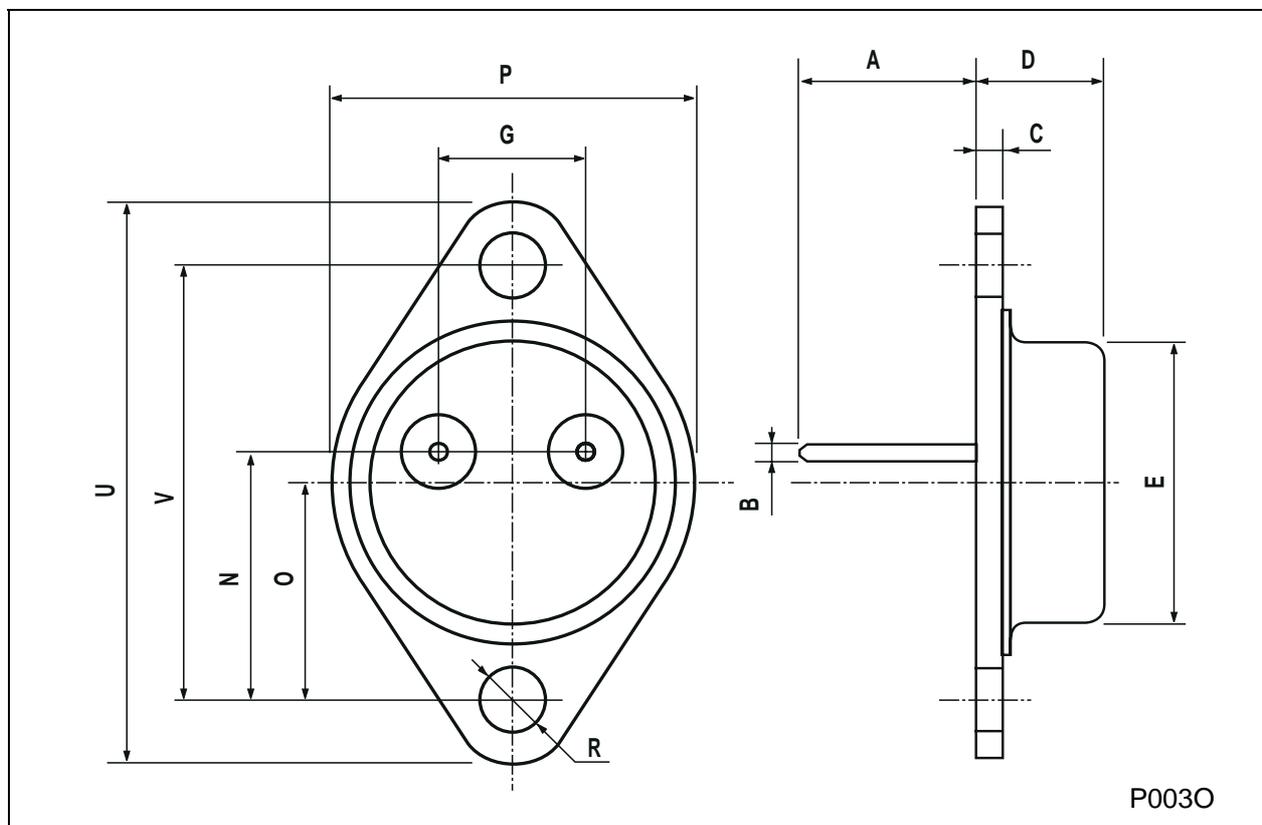
### ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>CEX</sub>	Collector Cut-off Current (V <sub>BE</sub> = -1.5V)	V <sub>CE</sub> = 160 V V <sub>CE</sub> = 160 V      T <sub>case</sub> = 125 °C			3 12	mA mA
I <sub>CEO</sub>	Collector Cut-off Current (I <sub>B</sub> = 0)	V <sub>CE</sub> = 100 V			3	mA
I <sub>EBO</sub>	Emitter Cut-off Current (I <sub>C</sub> = 0)	V <sub>EB</sub> = 5 V			1	mA
V <sub>CEO(sus)*</sub>	Collector-Emitter Sustaining Voltage (I <sub>B</sub> = 0)	I <sub>C</sub> = 200 mA      L = 25 mH	125			V
V <sub>(BR)EB0*</sub>	Emitter-base Breakdown Voltage (I <sub>C</sub> = 0)	I <sub>E</sub> = 50 mA	7			V
V <sub>CE(sat)*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 25 A    I <sub>B</sub> = 2.5 A I <sub>C</sub> = 50 A    I <sub>B</sub> = 5 A		0.3 0.7	0.6 1.2	V V
V <sub>BE(sat)*</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 50 A    I <sub>B</sub> = 5 A		1.4	2	V
h <sub>FE*</sub>	DC Current Gain	V <sub>CE</sub> = 2 V    I <sub>C</sub> = 25 A V <sub>CE</sub> = 4 V    I <sub>C</sub> = 50 A	20 10		60	
f <sub>T</sub>	Transition frequency	V <sub>CE</sub> = 15 V    I <sub>C</sub> = 2 A    f = 100 MHz	8			MHz
t <sub>on</sub> t <sub>f</sub> t <sub>s</sub>	RESISTIVE LOAD Turn-on Time Fall Time Storage Time	I <sub>C</sub> = 50 A    I <sub>B1</sub> = -I <sub>B2</sub> = 5 A			1.5 0.3 1.2	μs μs μs

\* Pulsed: Pulse duration = 300 μs, duty cycle ≤ 2 %.

**TO-3 (version S) MECHANICAL DATA**

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	11.00		13.10	0.433		0.516
B	1.47		1.60	0.058		0.063
C	1.50		1.65	0.059		0.065
D	8.32		8.92	0.327		0.351
E	19.00		20.00	0.748		0.787
G	10.70		11.10	0.421		0.437
N	16.50		17.20	0.649		0.677
P	25.00		26.00	0.984		1.023
R	4.00		4.09	0.157		0.161
U	38.50		39.30	1.515		1.547
V	30.00		30.30	1.187		1.193



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