

HIGH VOLTAGE NPN SILICON POWER TRANSISTOR

PRELIMINARY DATA

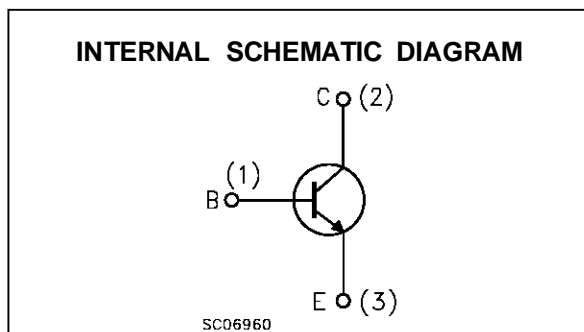
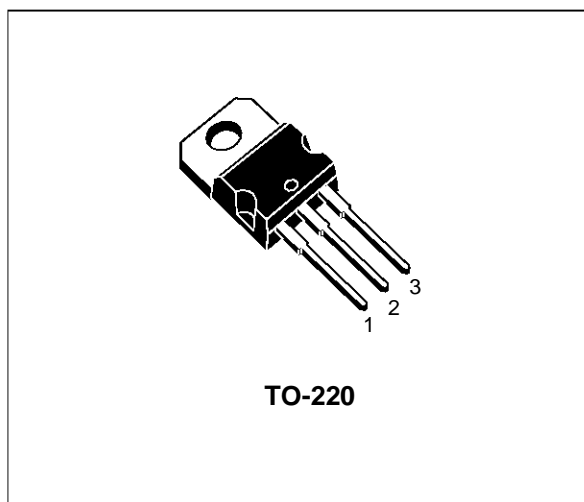
- EXTRA HIGH VOLTAGE CAPABILITY
- LOW OUTPUT CAPACITANCE
- CHARACTERIZED FOR LINEAR MODE OPERATION.

APPLICATIONS:

- DESIGNED SPECIFICALLY FOR DYNAMIC FOCUS IN CTV AND MONITOR.

DESCRIPTION

The BUH2M20AP is manufactured using Multi-epitaxial Mesa technology for cost-effective high performance and uses a Hollow Emitter structure to enhance switching speeds.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage ($I_E = 0$)	2000	V
V_{CEO}	Collector-Emitter Voltage ($I_B = 0$)	1200	V
V_{EBO}	Emitter-Base Voltage ($I_C = 0$)	5	V
I_C	Collector Current	30	mA
I_{CM}	Collector Peak Current ($t_p < 5$ ms)	40	mA
P_{tot}	Total Dissipation at $T_c = 25$ °C	40	W
T_{stg}	Storage Temperature	-65 to 150	°C
T_j	Max. Operating Junction Temperature	150	°C

BUH2M20AP

THERMAL DATA

R _{thj-case}	Thermal Resistance Junction-case	Max	3.12	°C/W
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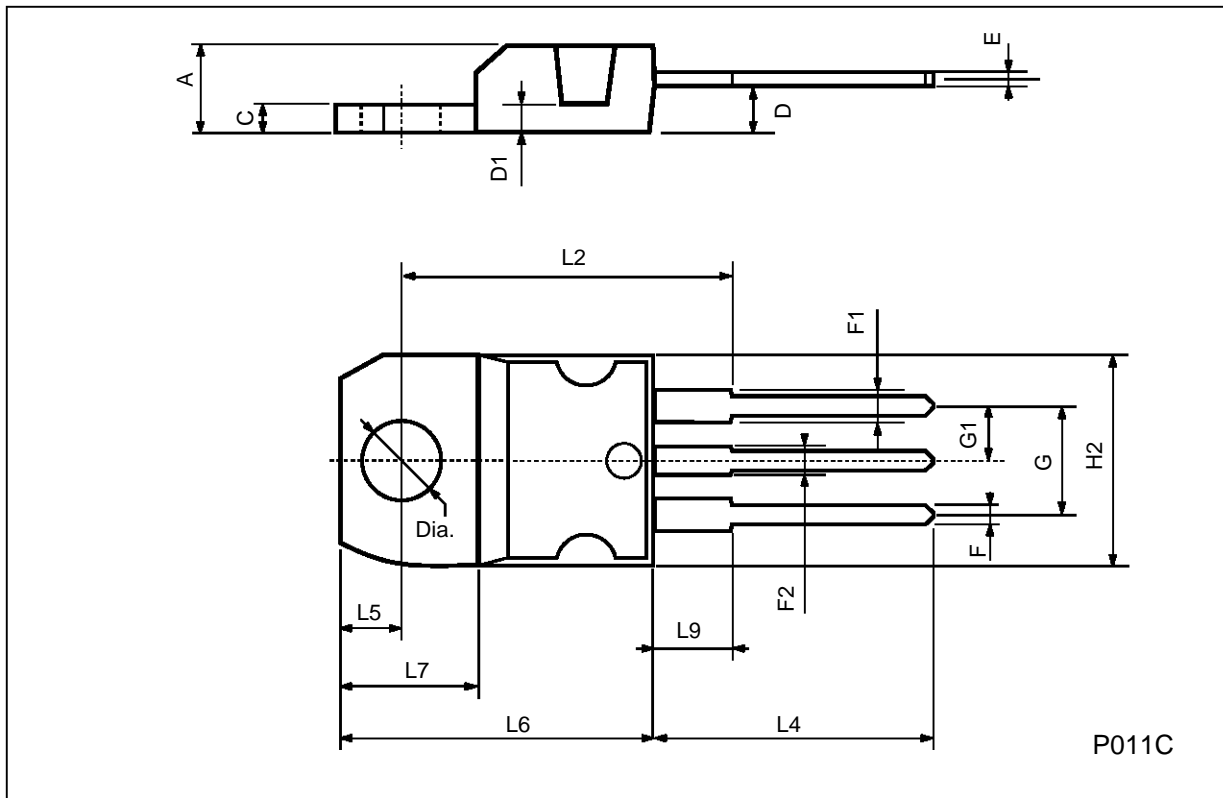
ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	V _{CE} = 2000 V			5	μA
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 4 V			10	μA
V _{CEO}	Collector-Emitter Breakdown Voltage	I _C = 1 mA	1200			V
V _{EBO}	Emitter-Base Voltage (I _C = 0)	I _E = 10 μA	5			V
V _{CE(sat)*}	Collector-Emitter Saturation Voltage	I _C = 2 mA I _B = 400 μA			5	V
V _{BE(sat)*}	Base-Emitter Saturation Voltage	I _C = 2 mA I _B = 400 μA			2	V
h _{FE*}	DC Current Gain	I _C = 2 mA V _{CE} = 10 V I _C = 10 mA V _{CE} = 10 V	10 10			
C _{ob}	Output Capacitance	V _{CB} = 100 V I _C = 0 f = 1MHz		3		pF

* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %

TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151



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