

Silicon NPN Power Transistors

BUH315

DESCRIPTION

- With TO-3PML package
- High voltage
- High speed switching

APPLICATIONS

- Horizontal deflection for color TV
- Switch mode power supplies.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

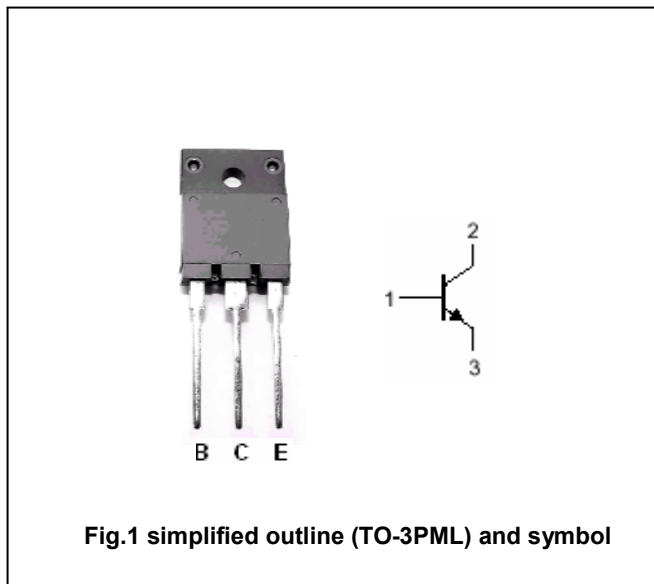


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	700	V
V _{EBO}	Emitter-base voltage	Open collector	10	V
I _C	Collector current (DC)		6	A
I _{CM}	Collector current-peak	t _p <5ms	12	A
I _B	Base current (DC)		3	A
I _{BM}	Base current-peak	t _p <5ms	5	A
P _{tot}	Total power dissipation	T _C =25°C	44	W
T _j	Operating junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

Silicon NPN Power Transistors

BUH315

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0	700			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA; I _C =0	10			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.75A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.75A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =1500V; V _{BE} =0			0.2	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =3A; V _{CE} =5V T _j =100 °C	6 3.5		12	

Switching times resistive load

t _s	Storage time	I _C =3A; I _{B1} =0.75A; I _{B2} =1.5A V _{CC} =400V			2.4	μs
t _f	Fall time				0.2	μs

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	2.8	°C/W

