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.

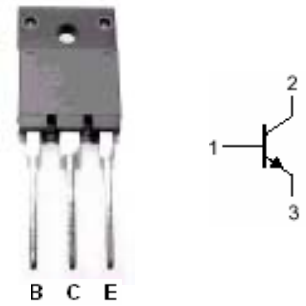

Fig.1 simplified outline (TO-3PML) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings(Ta=25℃)

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℃	44	W
T_j	Operating junction temperature		150	℃
T_{stg}	Storage temperature		-65~150	℃

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CHARACTERISTICS

Tj=25℃ 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℃	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
$R_{th\ j\text{-}c}$	Thermal resistance from junction to case	2.8	℃/W

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PACKAGE OUTLINE

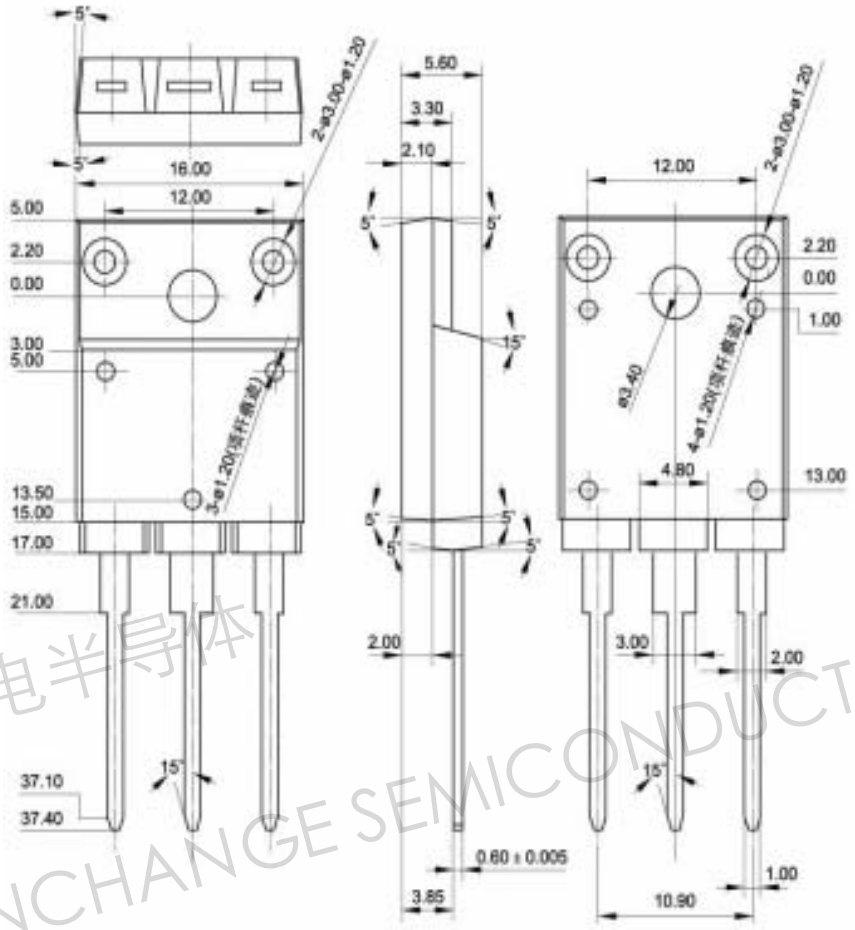

Fig.2 Outline dimensions