Silicon NPN Power Transistors BUH715

DESCRIPTION

·With TO-3PML package
·High voltage,high speed

APPLICATIONS

·Horizontal deflection for monitors.
·Switching mode power supplies

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

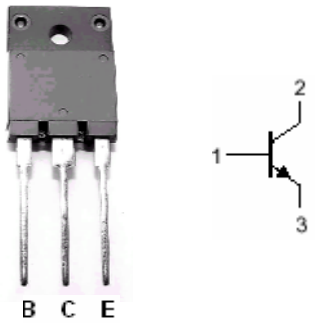


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25□)

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)		10	A
I_{CM}	Collector current (Pulse)		20	A
I_B	Base current (DC)		5	A
I_{BM}	Base current (Pulse)		10	A
P_{tot}	Total power dissipation	T_C=25□	57	W
T_j	Operating junction temperature		150	□
T_{stg}	Storage temperature		-65~150	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance from junction to case	2.2	□/W

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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=7A ;I_B=1.5A			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=7A ;I_B=1.5A			1.3	V
I_{CES}	Collector cut-off current	V_{CE}=1500V; V_{BE}=0 T_j=125□			1 2	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			100	μA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=5V	10			
h_{FE-2}	DC current gain	I_C=7A ; V_{CE}=5V	8		16	

Switching times

t_s	Storage time	I_C=7A;I_{B1}=1.5A;I_{B2}=3.5A; V_{CC}=400V		2.1	3.1	μs
t_f	Fall time			140	210	ns

PACKAGE OUTLINE

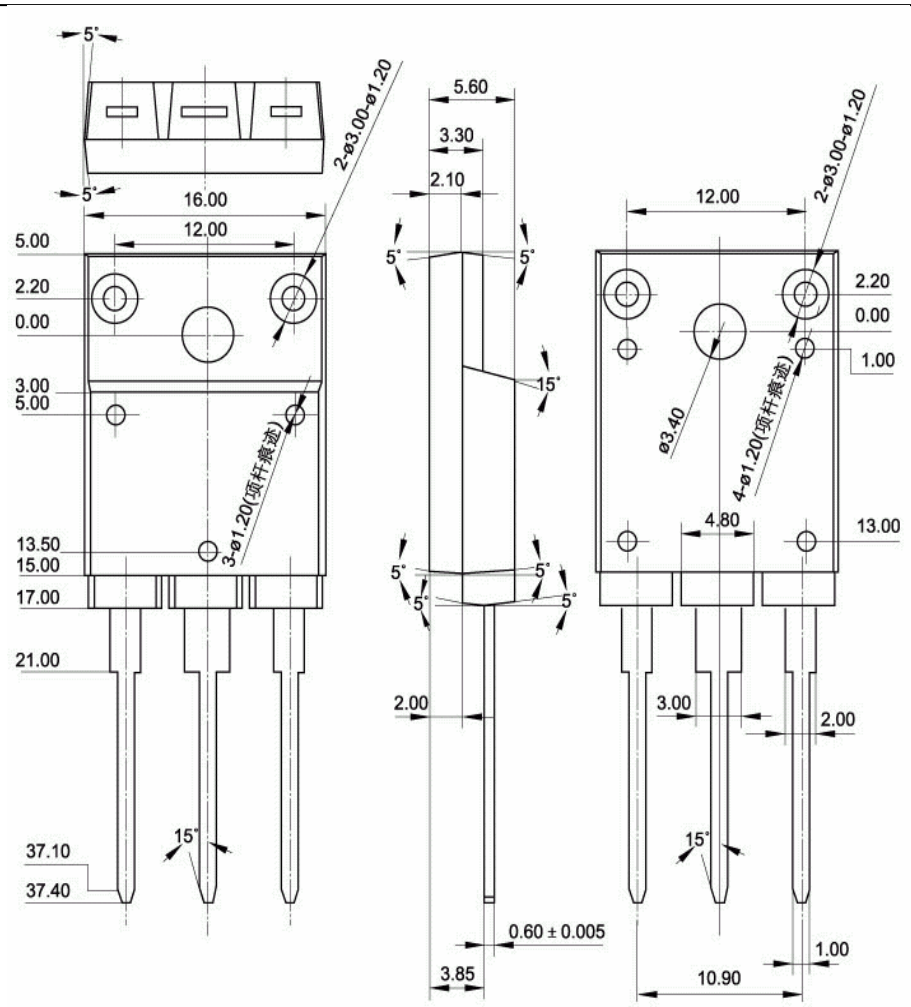


Fig.2 Outline dimensions