

Silicon NPN Power Transistors

BU205

DESCRIPTION

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

APPLICATIONS

- For use in horizontal deflection output stages for color TV receives.

PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
I_C	Collector current		2.5	A
I_{CM}	Collector current-peak		3	A
I_B	Base current		0.1	A
I_{BM}	Base current-peak		1.5	A
P_T	Total power dissipation	$T_C = 25$	10	W
T_j	Junction temperature		115	
T_{stg}	Storage temperature		-65~115	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal resistance junction to case	2.5	K/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A; I _B =0; L=25mH	700			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2 A; I _B =1A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2 A; I _B =1A			1.5	V
I _{CES}	Collector cut-off current	V _{CE} =1500V; V _{BE} =0			1.0	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =5V	2			
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		65		pF
f _T	Transition frequency	I _C =0.1A ; V _{CE} =15V		7.5		MHz
t _f	Fall time	I _C =2A ; I _B =1A L _B =10 μ H		0.75		μ s

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PACKAGE OUTLINE

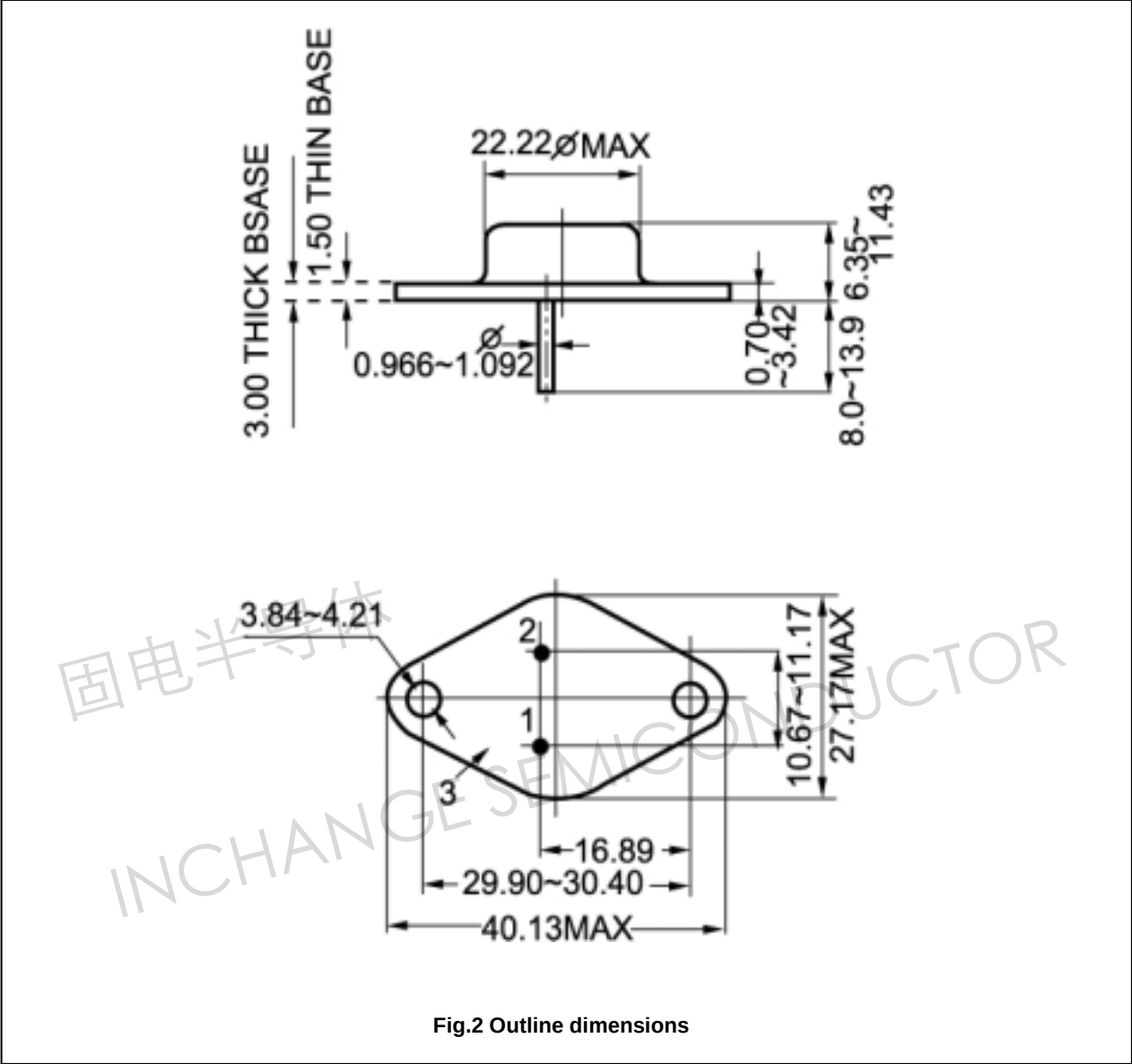


Fig.2 Outline dimensions