

**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

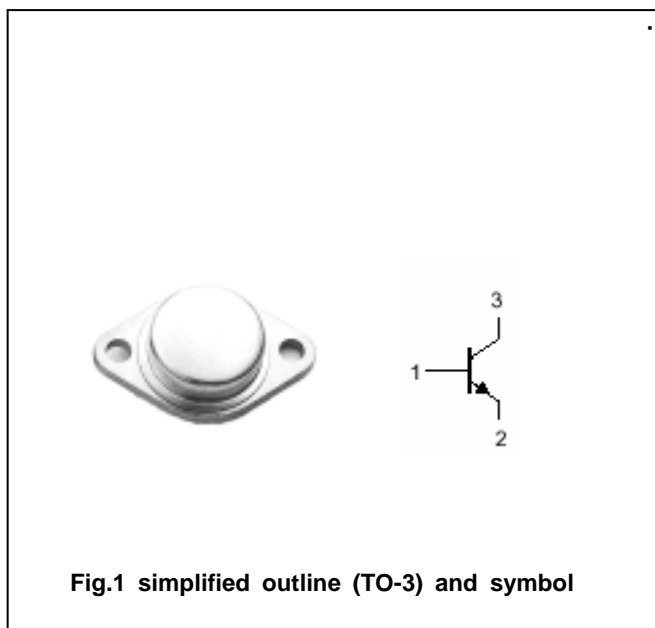


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta= )**

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<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.1A; I <sub>B</sub> =0; L=25mH	700			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2A; I <sub>B</sub> =1A			5.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2A; I <sub>B</sub> =1A			1.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; V <sub>BE</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2A; V <sub>CE</sub> =5V	2			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz		65		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A; V <sub>CE</sub> =15V		7.5		MHz
t <sub>f</sub>	Fall time	I <sub>C</sub> =2A; I <sub>B</sub> =1A L <sub>B</sub> =10 μH		0.75		μs

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PACKAGE OUTLINE

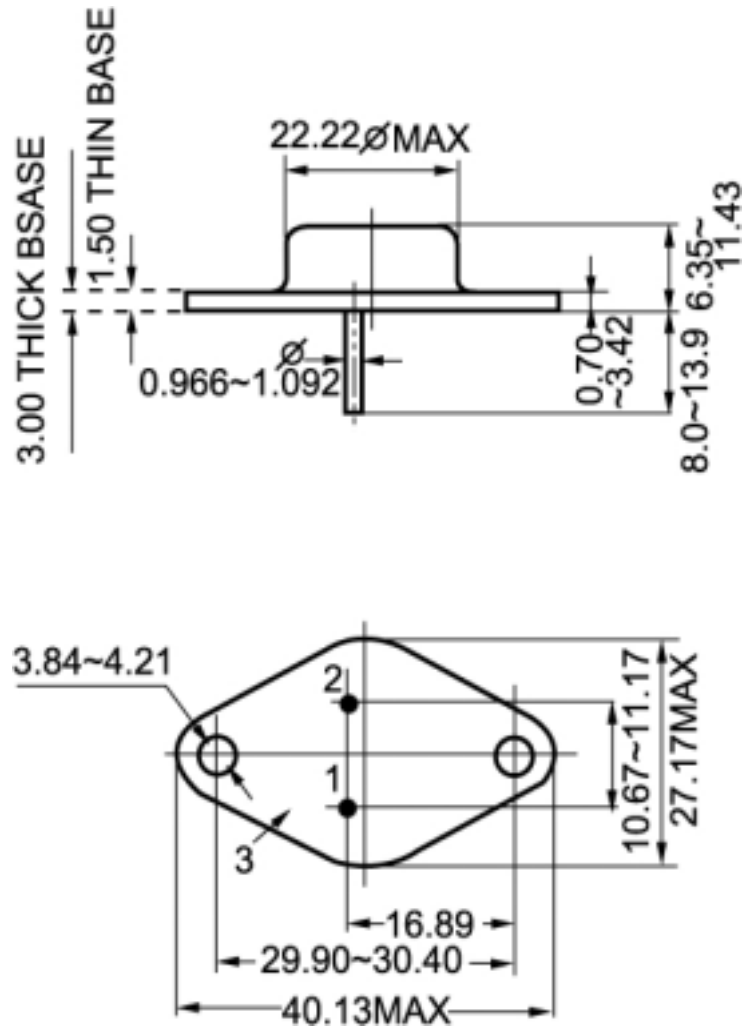


Fig.2 Outline dimensions