

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

BUY69A BUY69B BUY69C

DESCRIPTION

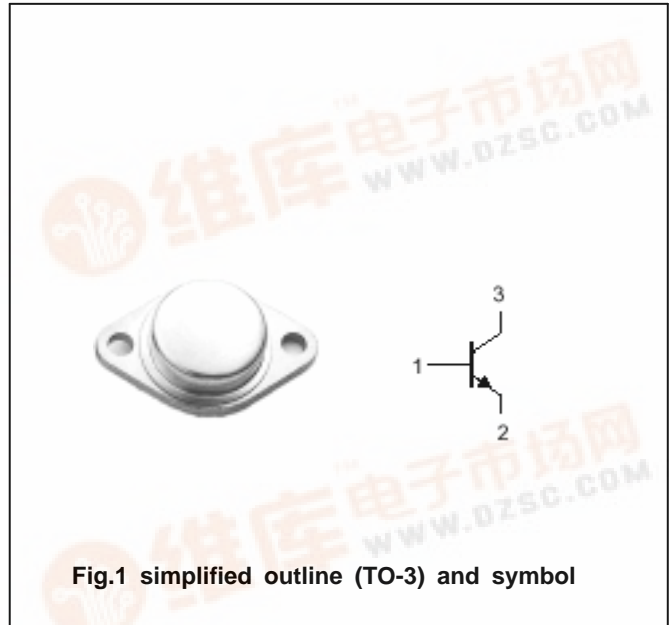
- With TO-3 package
- High voltage capability

APPLICATIONS

- For horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



Absolute maximum ratings(Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	BUY69A	1000	V
		BUY69B	800	
		BUY69C	500	
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	BUY69A	400	V
		BUY69B	325	
		BUY69C	200	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	8	V
I <sub>C</sub>	Collector current		10	A
I <sub>CM</sub>	Collector current-peak		15	A
I <sub>B</sub>	Base current		3.0	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25	100	W
T <sub>j</sub>	Junction temperature		200	
T <sub>stg</sub>	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance from junction to case	1.75	/W

## Silicon NPN Power Transistors

## BUY69A BUY69B BUY69C

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	BUY69A	I <sub>C</sub> =100mA ; I <sub>B</sub> =0	400			V
		BUY69B		325			
		BUY69C		200			
V <sub>CBO</sub>	Collector-base voltage	BUY69A	I <sub>C</sub> =1mA; I <sub>E</sub> =0	1000			V
		BUY69B		800			
		BUY69C		500			
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =2.5A			3.3	V	
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =2.5A			2.2	V	
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =rated V <sub>CEs</sub> ; V <sub>BE</sub> =0			1.0	mA	
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =8V; I <sub>C</sub> =0			1.0	mA	
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =2.5A ; V <sub>CE</sub> =10V	15				
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V; f=1MHz	10			MHz	
Switching times							
t <sub>r</sub>	Rise time	I <sub>C</sub> =5A ; I <sub>B1</sub> =-I <sub>B2</sub> =1.0A; V <sub>CC</sub> =250V			0.3	μs	
t <sub>s</sub>	Storage time				1.8	μs	
t <sub>f</sub>	Fall time				1.0	μs	

PACKAGE OUTLINE

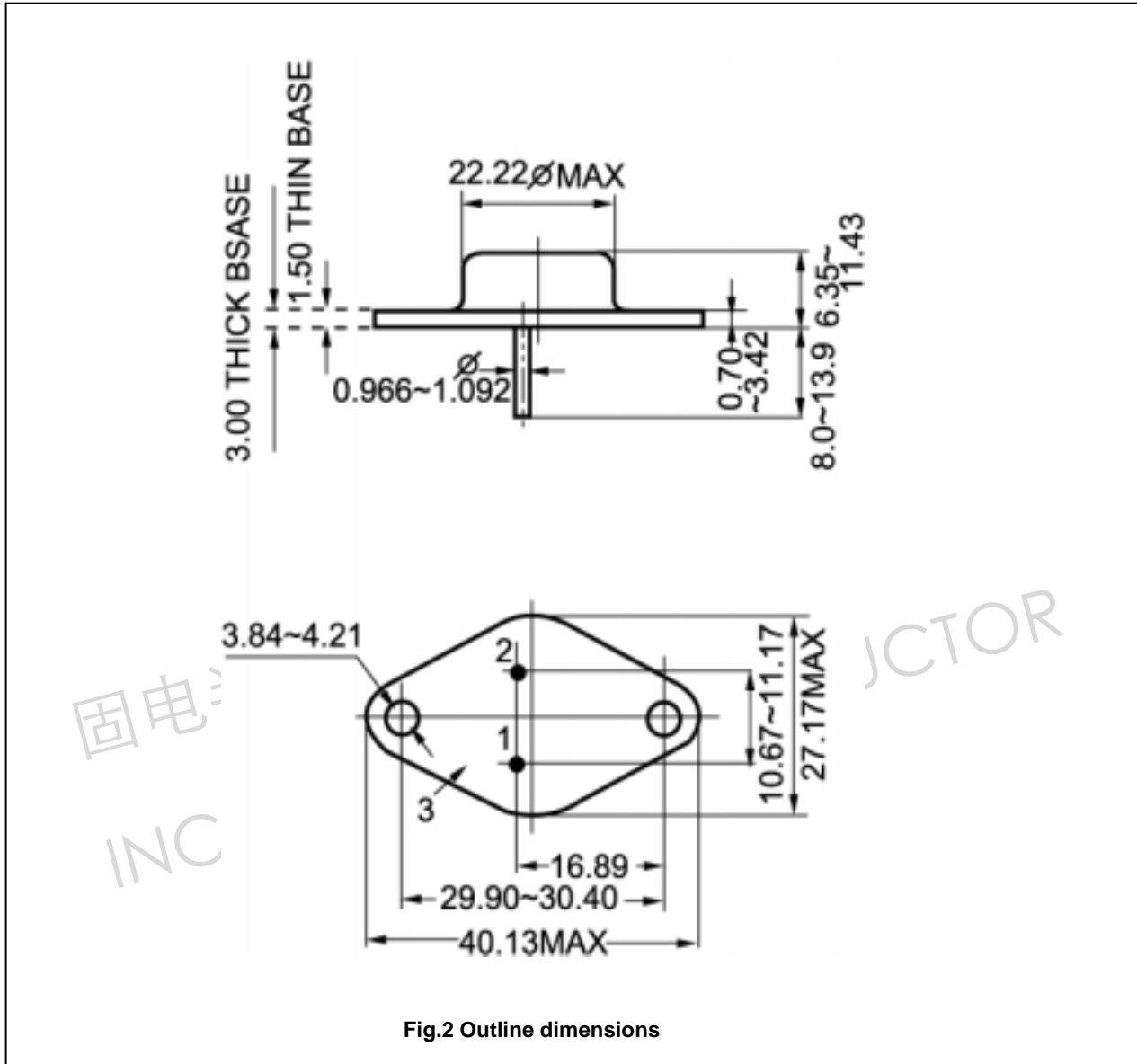


Fig.2 Outline dimensions