

**Inchange Semiconductor**

**Product Specification**

**Silicon NPN Power Transistors**

**2N6671 2N6672 2N6673**

**DESCRIPTION**

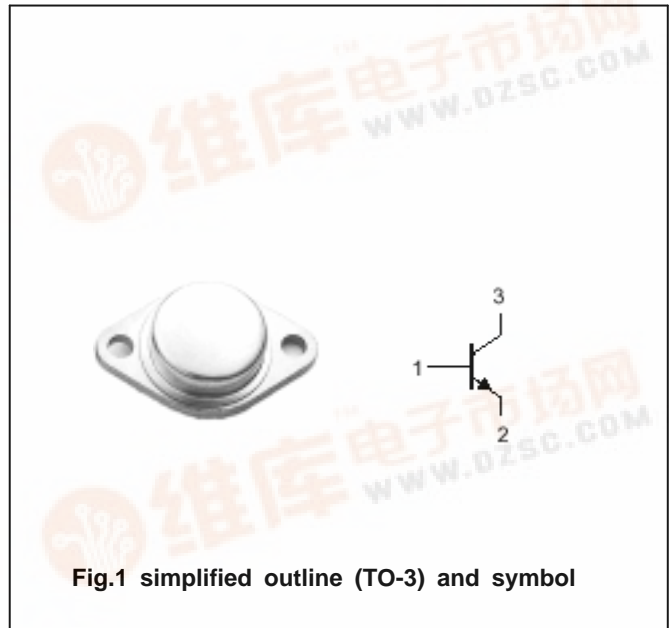
- With TO-3 package
- Low saturation voltage
- Fast switching speed
- High voltage ratings

**APPLICATIONS**

- Off-line power supplies
- High-voltage inverters
- Switching regulators

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



**Absolute maximum ratings(Ta= )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2N6671	450	V
		2N6672	550	
		2N6673	650	
V <sub>CEO</sub>	Collector-emitter voltage	2N6671	300	V
		2N6672	350	
		2N6673	400	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	8	V
I <sub>C</sub>	Collector current		8	A
I <sub>CM</sub>	Collector current-peak		10	A
I <sub>B</sub>	Base current		4	A
P <sub>D</sub>	Total Power Dissipation	T <sub>C</sub> =25	150	W
T <sub>j</sub>	Junction temperature		200	
T <sub>stg</sub>	Storage temperature		-65~200	

## Silicon NPN Power Transistors

## 2N6671 2N6672 2N6673

## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	2N6671	I <sub>C</sub> =0.2A ; I <sub>B</sub> =0	300			V
		2N6672		350			
		2N6673		400			
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =5A; I <sub>B</sub> =1A			1.0	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =8A ; I <sub>B</sub> =4A			2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage		I <sub>C</sub> =5A; I <sub>B</sub> =1A			1.6	V
I <sub>CEV</sub>	Collector cut-off current	2N6671	V <sub>CE</sub> =450V; V <sub>BE(off)</sub> =-1.5V			0.1	mA
		2N6672	V <sub>CE</sub> =550V; V <sub>BE(off)</sub> =-1.5V				
		2N6673	V <sub>CE</sub> =650V; V <sub>BE(off)</sub> =-1.5V				
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =8V; I <sub>C</sub> =0			2.0	mA
h <sub>FE</sub>	DC current gain		I <sub>C</sub> =5A ; V <sub>CE</sub> =3V	10		40	
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=0.1MHz			300	pF
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =0.2A ; V <sub>CE</sub> =10V	15		60	MHz

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.17	/W

PACKAGE OUTLINE

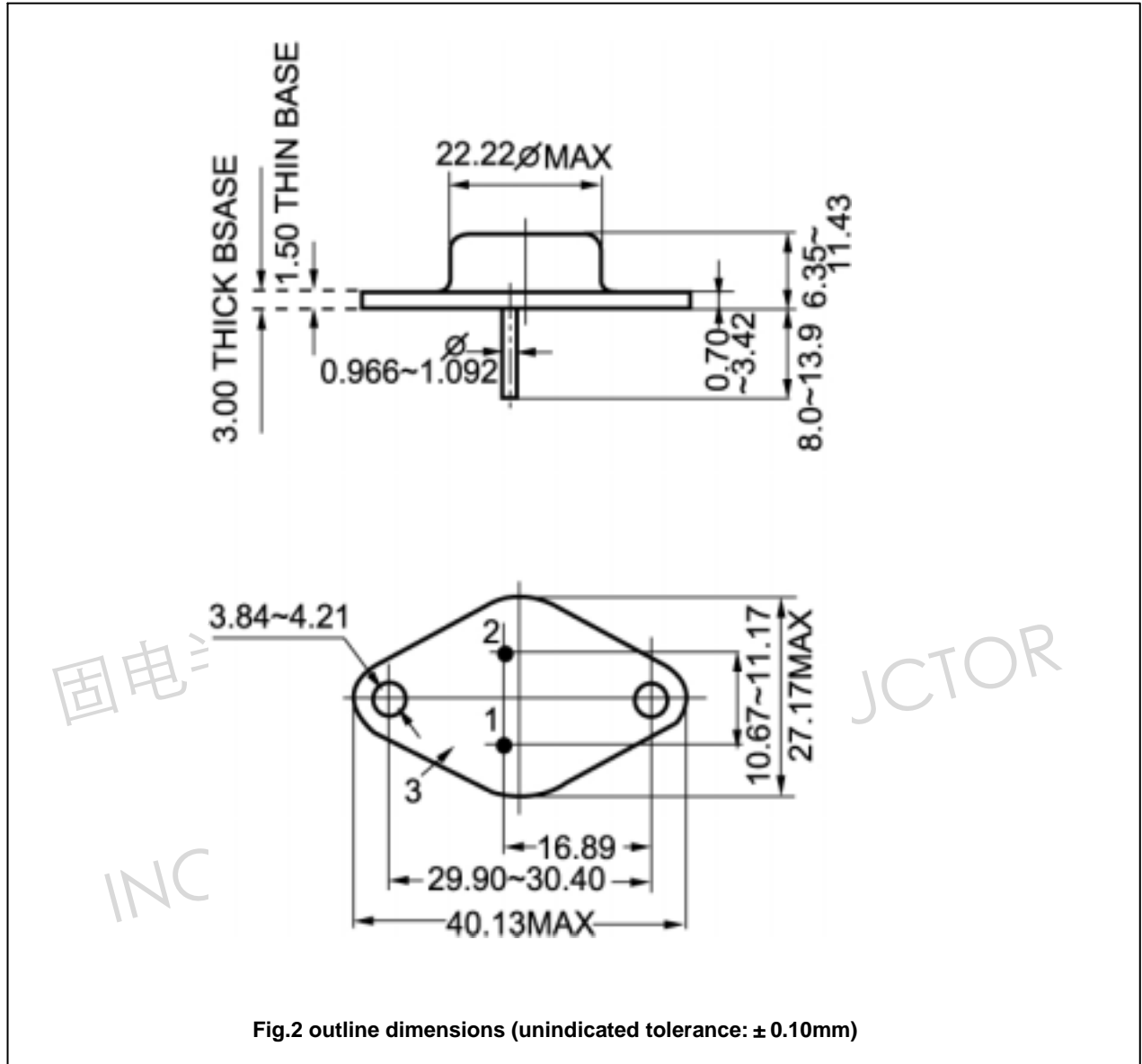


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10\text{mm}$ )