

**Silicon NPN Power Transistors**

**2SD850**

**DESCRIPTION**

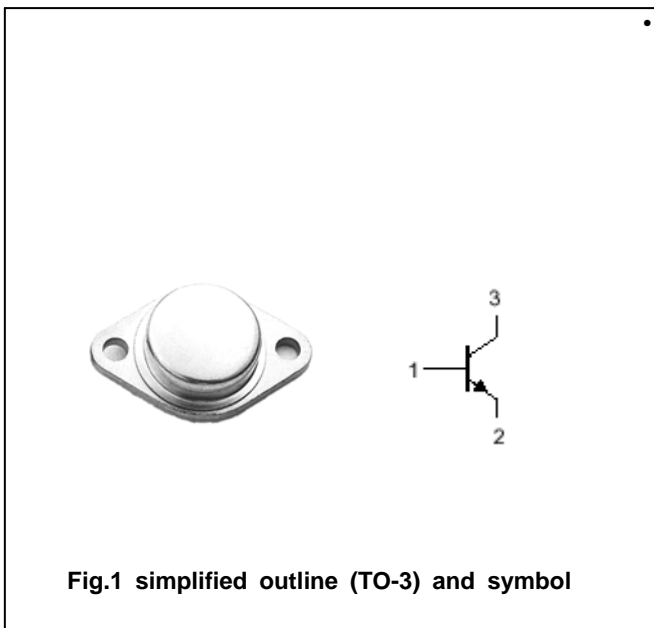
- With TO-3 package
- High voltage ,high speed

**APPLICATIONS**

- Line-operated horizontal deflection output applications

**PINNING(see fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

**Absolute maximum ratings(Ta=°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	1500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	700	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		3	A
I <sub>CM</sub>	Collector current-peak		5	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =90°C	25	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

## Silicon NPN Power Transistors

## 2SD850

## CHARACTERISTICS

T<sub>j</sub>=25°C 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	600			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> =2.5 A; I <sub>B</sub> =0.8A			4.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2.5 A; I <sub>B</sub> =0.8A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =750V; I <sub>E</sub> =0			50	μ A
		V <sub>CB</sub> =1500V; I <sub>E</sub> =0			1.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V	8			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =2.5A ; V <sub>CE</sub> =10V	4		15	
t <sub>f</sub>	Fall time	I <sub>C</sub> =2.5A; I <sub>Bend</sub> =0.8A; L <sub>B</sub> =5 μ H			1.0	μ s
t <sub>s</sub>	Storage time			13		μ s

PACKAGE OUTLINE

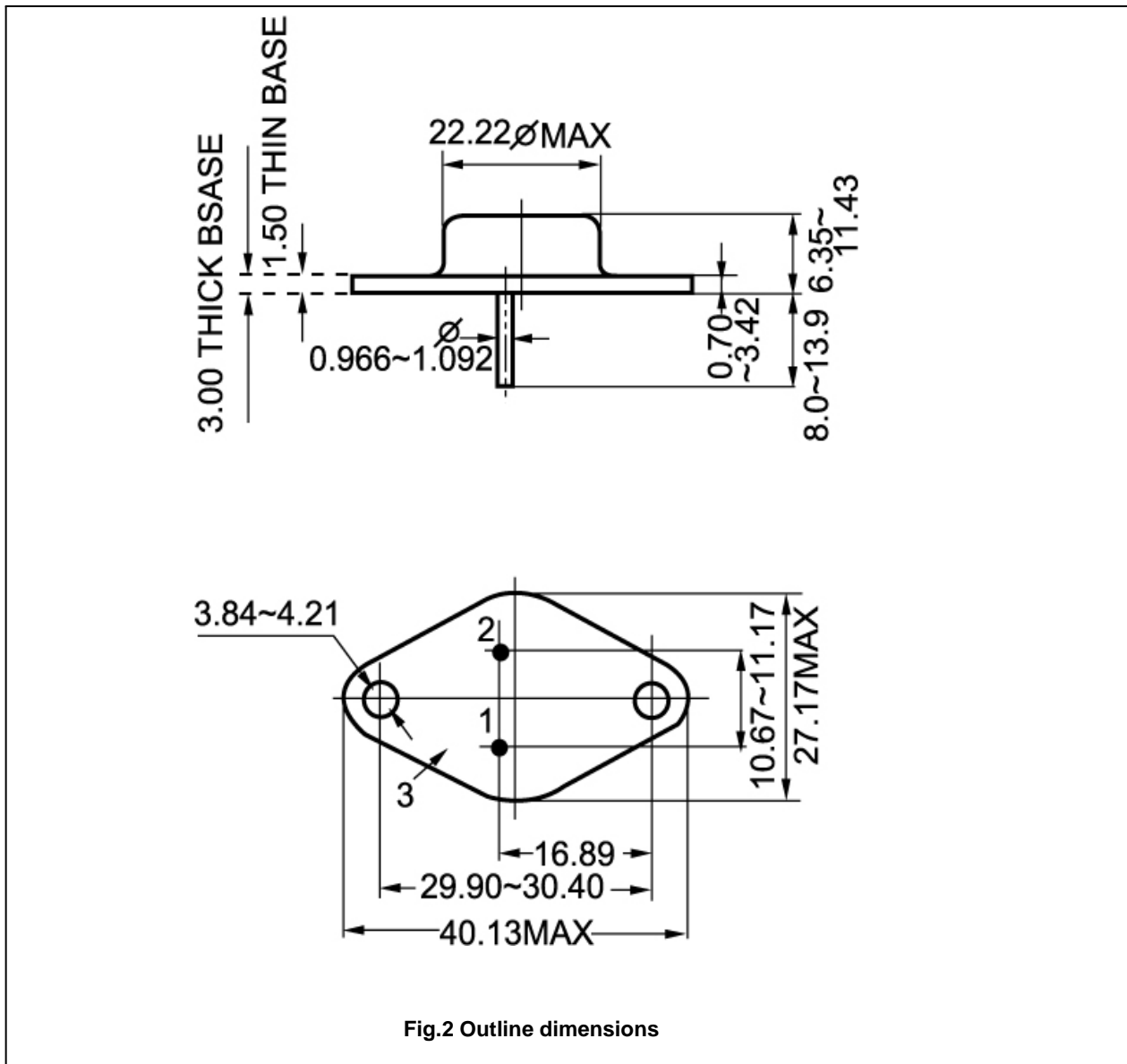


Fig.2 Outline dimensions