

SavantIC Semiconductor

Product Specification

Silicon PNP Power Transistors

MJ2500/2501

DESCRIPTION

- With TO-3 package
- DARLINGTON
- High DC current gain
- Complement to type MJ3000/3001

APPLICATIONS

- For use as output devices in complementary general purpose amplifier applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

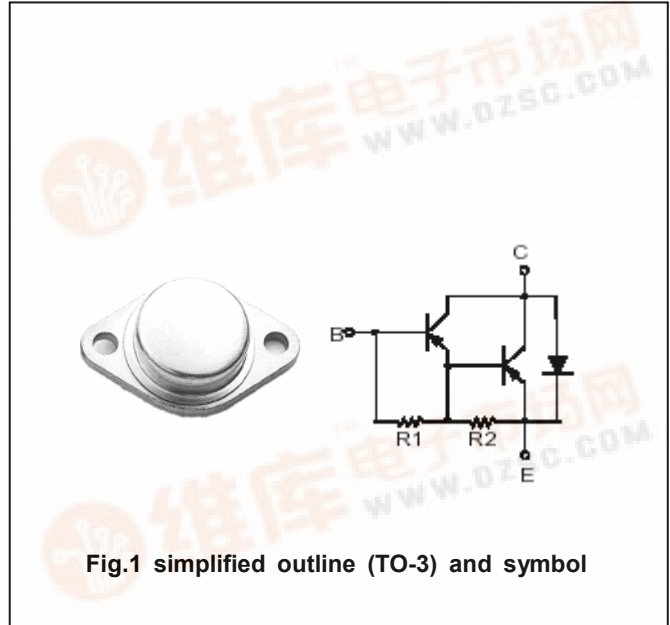


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(T<sub>c</sub>=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	MJ2500	-60	V
		MJ2501	-80	
V <sub>CEO</sub>	Collector-emitter voltage	MJ2500	-60	V
		MJ2501	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-10	A
I <sub>B</sub>	Base current		-0.2	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		-55~200	℃

## Silicon PNP Power Transistors

## MJ2500/2501

## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	MJ2500	I <sub>C</sub> =-0.1A ; I <sub>B</sub> =0	-60			V
		MJ2501		-80			
V <sub>CE(sat)-1</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-5A; I <sub>B</sub> =-20mA			-2.0	V
V <sub>CE(sat)-2</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-10A; I <sub>B</sub> =-50mA			-4.0	V
V <sub>BE</sub>	Base-emitter on voltage		I <sub>C</sub> =-5A ; V <sub>CE</sub> =-3V			-3.0	V
I <sub>CER</sub>	Collector cut-off current	MJ2500	V <sub>CE</sub> =-60V; R <sub>BE</sub> =1.0kΩ T <sub>C</sub> =150°C			1.0 5.0	mA
		MJ2501	V <sub>CE</sub> =-80V; R <sub>BE</sub> =1.0kΩ T <sub>C</sub> =150°C			1.0 5.0	
I <sub>CEO</sub>	Collector cut-off current	MJ2500	V <sub>CE</sub> =-30V; I <sub>B</sub> =0			-1.0	mA
		MJ2501	V <sub>CE</sub> =-40V; I <sub>B</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-5V; 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	1000			

## THERMAL CHARACTERISTICS

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

PACKAGE OUTLINE

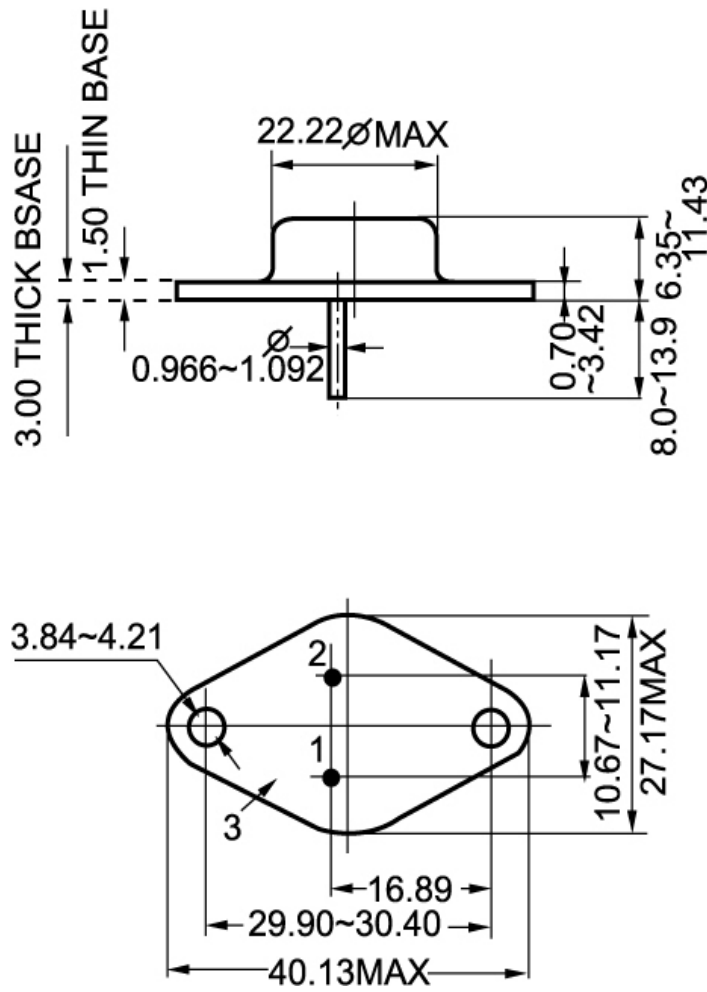


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)