

**Silicon NPN Power Transistors**

**MJE800/801/802/803**

**DESCRIPTION**

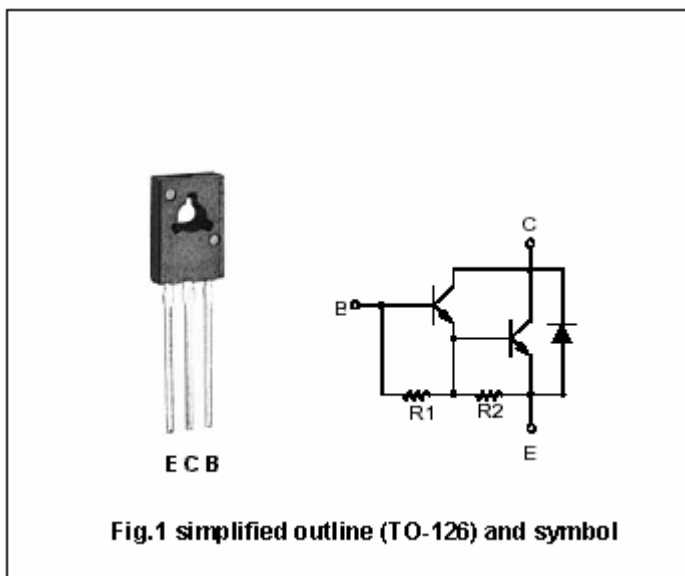
- With TO-126 package
- Complement to type MJE700/701/702/703
- High DC current gain
- DARLINGTON

**APPLICATIONS**

- Designed for general-purpose amplifier and low-speed switching applications

**PINNING (see Fig.2)**

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base



**ABSOLUTE MAXIMUM RATINGS(T<sub>c</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	MJE800/801	60	V
		MJE802/803	80	
V <sub>CEO</sub>	Collector-emitter voltage	MJE800/801	60	V
		MJE802/803	80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		4	A
I <sub>B</sub>	Base current		0.1	A
P <sub>C</sub>	Collector power dissipation	T <sub>c</sub> =25°C	40	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

## Silicon NPN Power Transistors

## MJE800/801/802/803

## 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	MJE800/801	I <sub>C</sub> =50mA; I <sub>B</sub> =0	60			V
		MJE802/803		80			
V <sub>CE(sat)-1</sub>	Collector-emitter saturation voltage	MJE800/802	I <sub>C</sub> =1.5A; I <sub>B</sub> =30mA			2.5	V
		MJE801/803	I <sub>C</sub> =2A; I <sub>B</sub> =40mA			2.8	
V <sub>CE(sat)-2</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =4A; I <sub>B</sub> =40mA			3.0	V
V <sub>BE-1</sub>	Base-emitter on voltage	MJE800/802	I <sub>C</sub> =1.5A; V <sub>CE</sub> =3V			2.5	V
		MJE801/803	I <sub>C</sub> =2A; V <sub>CE</sub> =3V				
V <sub>BE-2</sub>	Base-emitter on voltage		I <sub>C</sub> =4A; V <sub>CE</sub> =3V			3.0	V
I <sub>CEO</sub>	Collector cut-off current	MJE800/801	V <sub>CE</sub> =60V; I <sub>B</sub> =0			100	μA
		MJE802/803	V <sub>CE</sub> =80V; I <sub>B</sub> =0				
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =Rated BV <sub>CEO</sub> ; I <sub>E</sub> =0 T <sub>C</sub> =100°C			100 500	μA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =5V; I <sub>C</sub> =0			2	mA
h <sub>FE-1</sub>	DC current gain	MJE800/802	I <sub>C</sub> =1.5A; V <sub>CE</sub> =3V	750			
		MJE801/803	I <sub>C</sub> =2A; V <sub>CE</sub> =3V				
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =4A; V <sub>CE</sub> =3V	100			

Silicon NPN Power Transistors

MJE800/801/802/803

PACKAGE OUTLINE

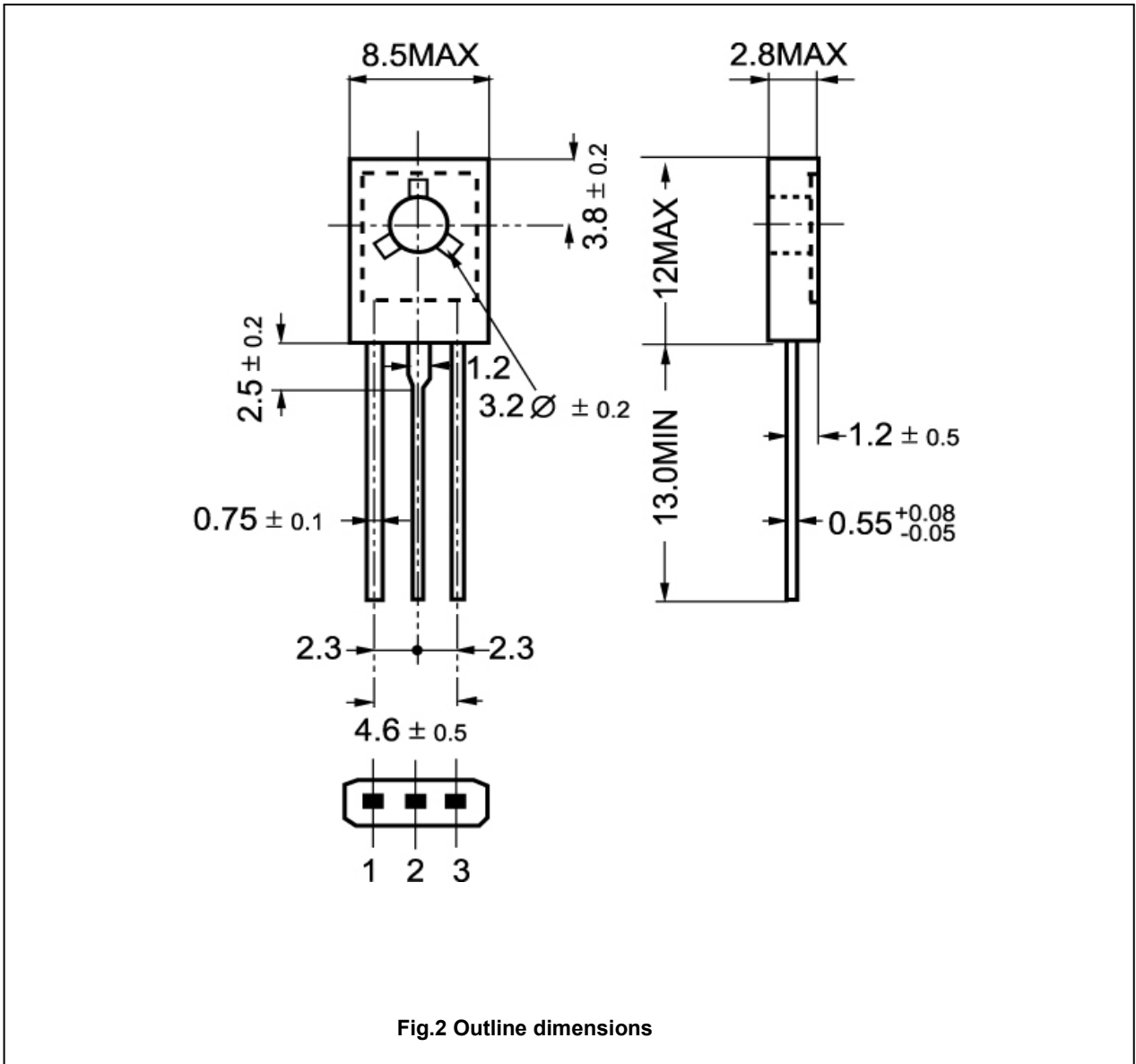


Fig.2 Outline dimensions