

Silicon NPN Power Transistors

MJE800/801/802/803

DESCRIPTION

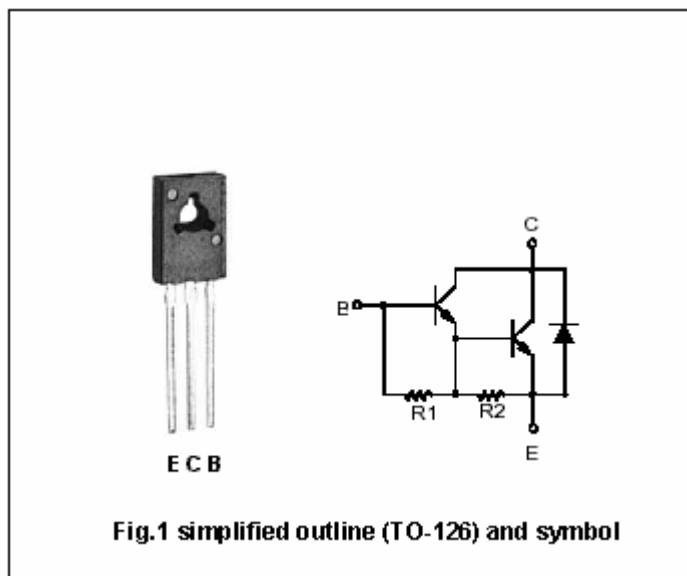
- With TO-126 package
- Complement to type MJE700/701/702/703
- High DC current gain
- DARLINGTON

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($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	MJE800/801	Open emitter	60	V
		MJE802/803		80	
V_{CEO}	Collector-emitter voltage	MJE800/801	Open base	60	V
		MJE802/803		80	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			4	A
I_B	Base current			0.1	A
P_C	Collector power dissipation		$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	MJE800/801	I _C =50mA; I _B =0	60			V
		MJE802/803		80			
V _{CE(sat)} -1	Collector-emitter saturation voltage	MJE800/802	I _C =1.5A; I _B =30mA			2.5	V
		MJE801/803	I _C =2A; I _B =40mA			2.8	
V _{CE(sat)} -2	Collector-emitter saturation voltage		I _C =4A; I _B =40mA			3.0	V
V _{BE-1}	Base-emitter on voltage	MJE800/802	I _C =1.5A; V _{CE} =3V			2.5	V
		MJE801/803	I _C =2A; V _{CE} =3V				
V _{BE-2}	Base-emitter on voltage		I _C =4A; V _{CE} =3V			3.0	V
I _{CEO}	Collector cut-off current	MJE800/801	V _{CE} =60V; I _B =0			100	μA
		MJE802/803	V _{CE} =80V; I _B =0				
I _{CBO}	Collector cut-off current		V _{CB} =Rated BV _{CEO} ; I _E =0 T _C =100°C			100 500	μA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2	mA
h _{FE-1}	DC current gain	MJE800/802	I _C =1.5A; V _{CE} =3V	750			
		MJE801/803	I _C =2A; V _{CE} =3V				
h _{FE-2}	DC current gain		I _C =4A; V _{CE} =3V	100			

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PACKAGE OUTLINE

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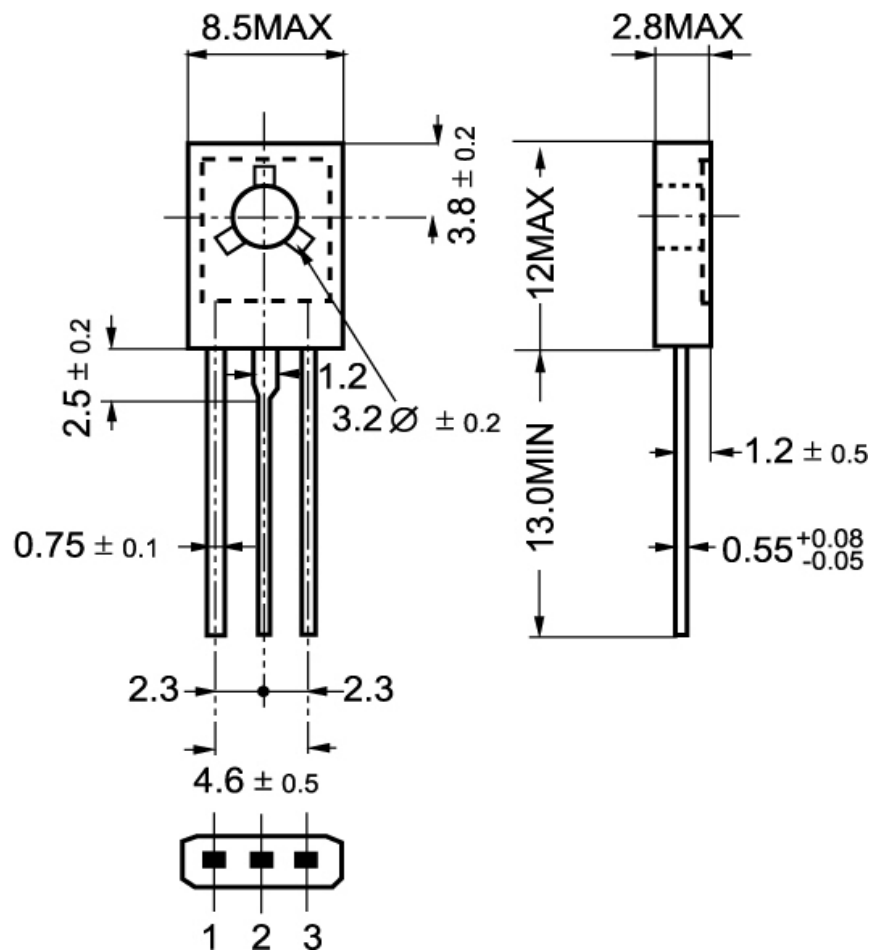


Fig.2 Outline dimensions