

Silicon NPN Power Transistors

MJ4033/4034/4035

DESCRIPTION

- With TO-3 package
- Respectively complement to type MJ4030/4031/4032
- DARLINGTON
- High DC current gain

APPLICATIONS

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

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

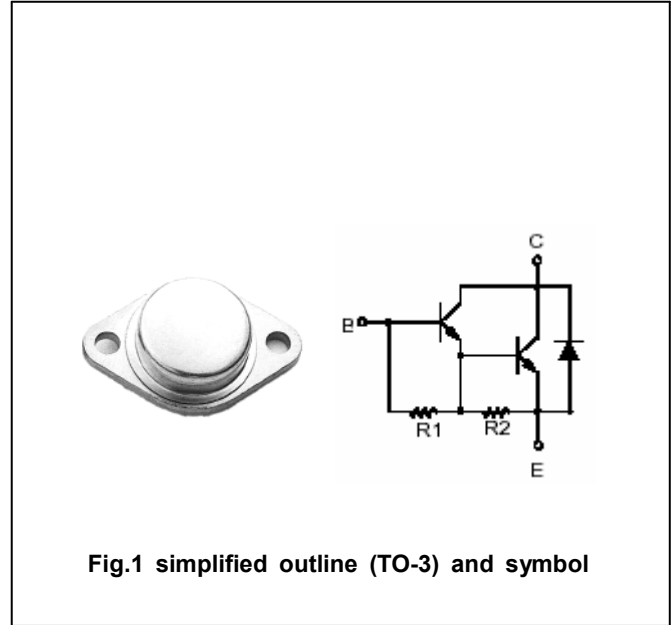


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS($T_c=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	MJ4033	60	V
		MJ4034	80	
		MJ4035	100	
V_{CEO}	Collector-emitter voltage	MJ4033	60	V
		MJ4034	80	
		MJ4035	100	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		16	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		0.5	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$	150	W
T_j	Junction temperature		200	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	MJ4033	60			V
		MJ4034	80			
		MJ4035	100			
V _{CE(sat)-1}	Collector-emitter saturation voltage	I _C =10A; I _B =40mA			2.5	V
V _{CE(sat)-2}	Collector-emitter saturation voltage	I _C =16A; I _B =80mA			4.0	V
V _{BE}	Base-emitter on voltage	I _C =10A; V _{CE} =3V			3.0	V
I _{CEO}	Collector cut-off current	V _{CE} =30V; I _B =0			3.0	mA
		V _{CE} =40V; I _B =0				
		V _{CE} =50V; I _B =0				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			5.0	mA
h _{FE}	DC current gain	I _C =10A; V _{CE} =3V	1000			

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	1.17	°C/W

PACKAGE OUTLINE

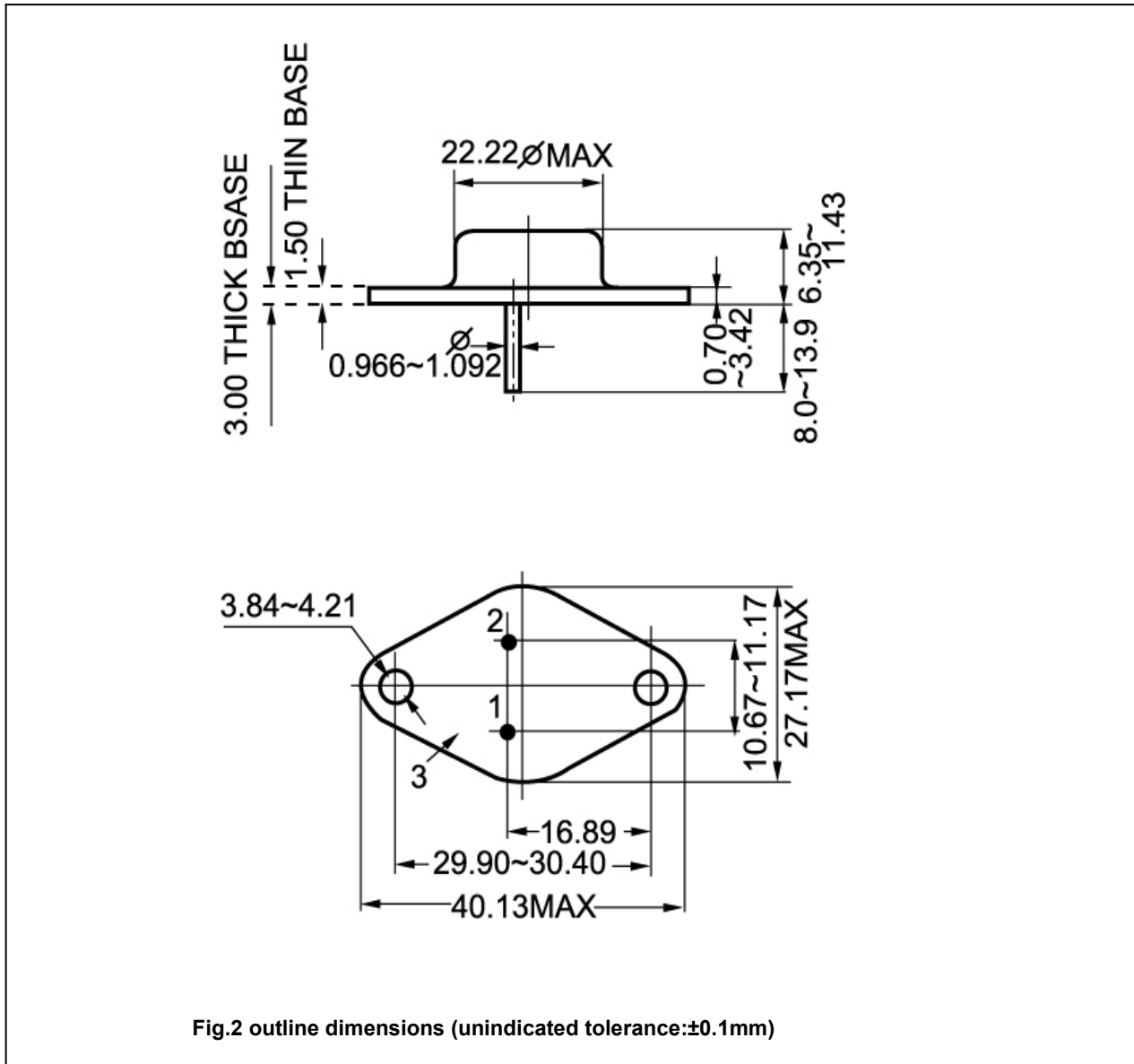


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)