

Silicon NPN Power Transistors

MJ4033/4034/4035

DESCRIPTION

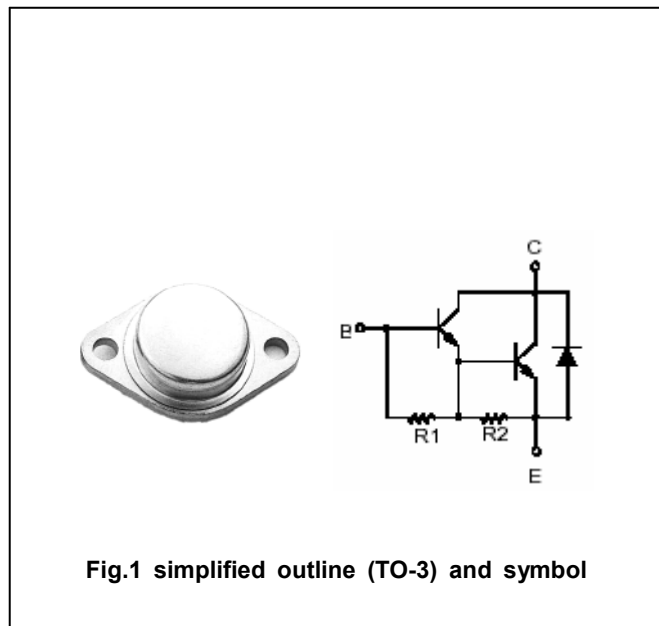
- With TO-3 package
- Respectively complement to type MJ4030/4031/4032
- DARLINGTON
- High DC current gain

APPLICATIONS

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

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	MJ4033	Open emitter	60	V
		MJ4034		80	
		MJ4035		100	
V_{CEO}	Collector-emitter voltage	MJ4033	Open base	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	I _C =0.1A ; I _B =0	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			

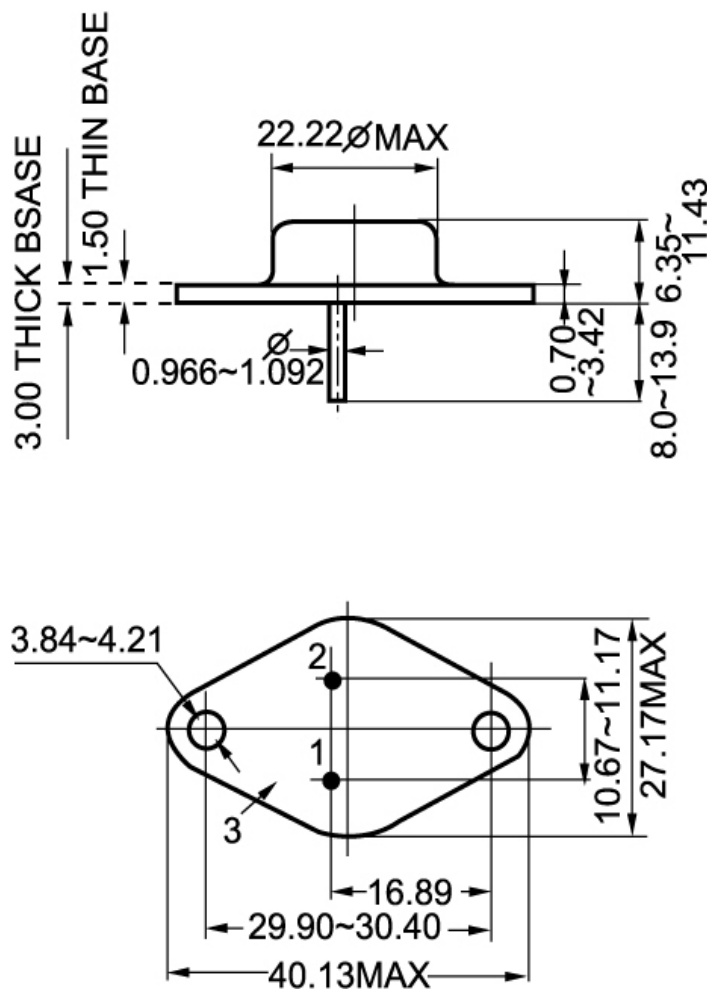
THERMAL CHARACTERISTICS

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

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PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)