

Silicon NPN Power Transistors

2N6037 2N6038 2N6039

DESCRIPTION

- With TO-126 package
- Complement to type 2N6034/6035/6036
- DARLINGTON
- High DC current gain

APPLICATIONS

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

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base

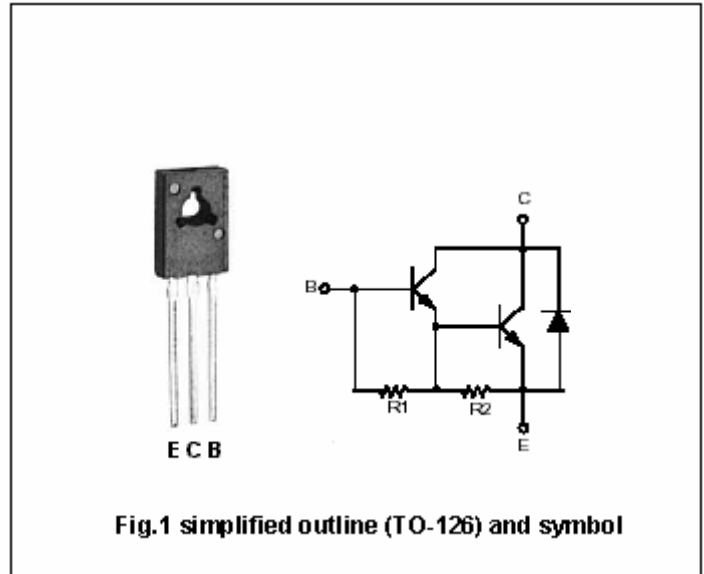


Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6037	40	V
		2N6038	60	
		2N6039	80	
V_{CEO}	Collector-emitter voltage	2N6037	40	V
		2N6038	60	
		2N6039	80	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		4	A
I_{CM}	Collector current-peak		8	A
I_B	Base current		0.1	A
P_D	Total Power Dissipation	$T_C = 25 \square$	40	W
T_j	Junction temperature		150	\square
T_{stg}	Storage temperature		-65~150	\square

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	3.12	\square/W

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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	2N6037	40			V
		2N6038	60			
		2N6039	80			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =2A; I _B =8mA			2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =4A; I _B =40mA			3.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =40mA			4.0	V
V _{BE}	Base-emitter on voltage	I _C =2A; V _{CE} =3V			2.8	V
I _{CEO}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; I _B =0			0.1	mA
I _{CEX}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =125°C			0.1 0.5	mA
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			2.0	mA
h _{FE-1}	DC current gain	I _C =0.5A; V _{CE} =3V	500			
h _{FE-2}	DC current gain	I _C =2A; V _{CE} =3V	750		15000	
h _{FE-3}	DC current gain	I _C =4A; V _{CE} =3V	100			
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=0.1MHz			100	pF

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PACKAGE OUTLINE

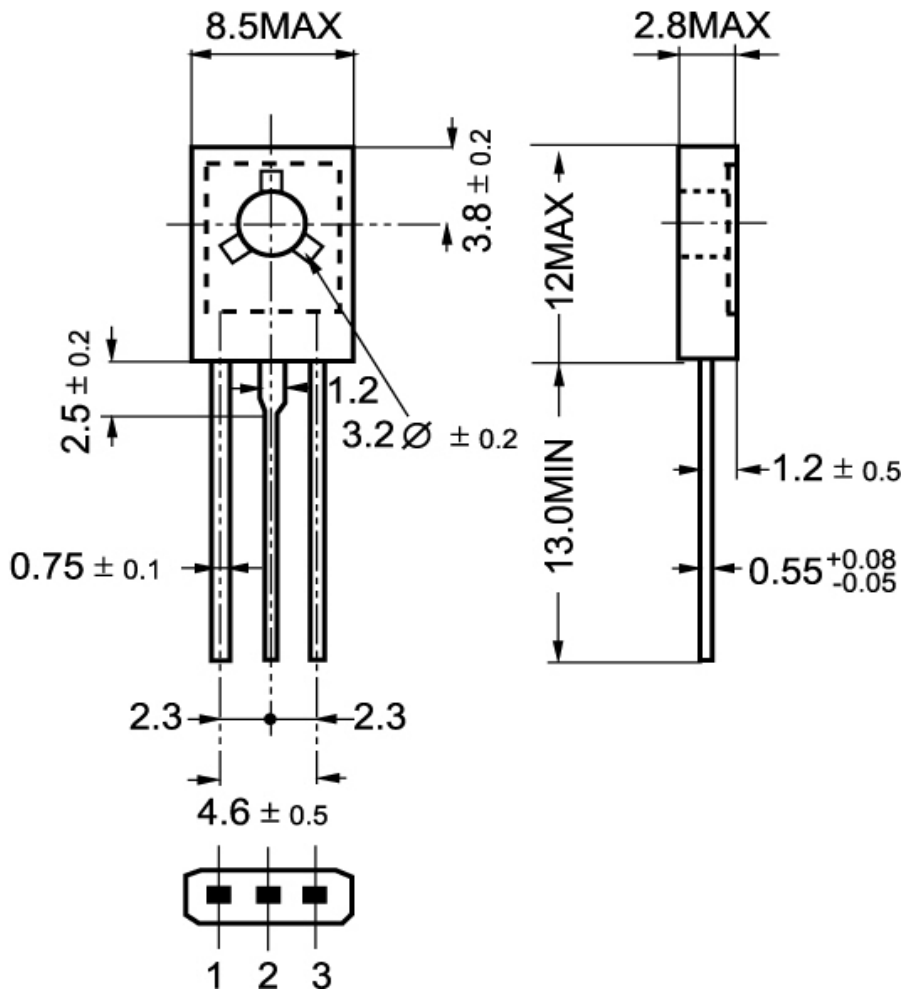


Fig.2 outline dimensions