

Silicon NPN Power Transistors

BD675A/677A/679A/681

DESCRIPTION

- With TO-126 package
- Complement to type BD676A/678A/680A/682
- DARLINGTON

APPLICATIONS

- For medium power linear and switching applications

PINNING

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

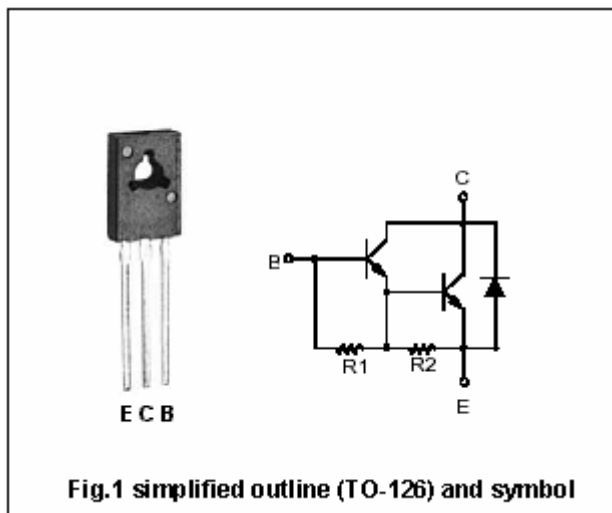


Fig.1 simplified outline (TO-126) and symbol

Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V _{CBO}	Collector-base voltage	Open emitter	BD675A	45	V
			BD677A	60	
			BD679A	80	
			BD681	100	
V _{CEO}	Collector-emitter voltage	Open base	BD675A	45	V
			BD677A	60	
			BD679A	80	
			BD681	100	
V _{EBO}	Emitter -base voltage	Open collector	5	V	
I _C	Collector current		4	A	
I _{CM}	Collector current-Peak		6	A	
I _B	Base current		0.1	A	
P _C	Collector power dissipation	T _C =25	40	W	
T _j	Junction temperature		150		
T _{stg}	Storage temperature		-65~150		

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BD675A	I _C =50mA; I _B =0	45			V
		BD677A		60			
		BD679A		80			
		BD681		100			
V _{CEsat}	Collector-emitter saturation voltage	BD675A/677A/679A	I _C =2A; I _B =40mA			2.8	V
		BD681	I _C =1.5A; I _B =30mA			2.5	
V _{BE(ON)}	Base-emitter voltage	BD675A/677A/679A	I _C =2A; V _{CE} =3V			2.5	V
		BD681	I _C =1.5A; V _{CE} =3V			2.5	
I _{CBO}	Collector cut-off current	BD675A	V _{CB} =45V; I _E =0			0.2	mA
		BD677A	V _{CB} =60V; I _E =0				
		BD679A	V _{CB} =80V; I _E =0				
		BD681	V _{CB} =100V; I _E =0				
I _{CEO}	Collector cut-off current	BD675A	V _{CE} =45V; V _{BE} =0			0.5	mA
		BD677A	V _{CE} =60V; V _{BE} =0				
		BD679A	V _{CE} =80V; V _{BE} =0				
		BD681	V _{CE} =100V; V _{BE} =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2	mA
h _{FE}	DC current gain	BD675A/677A/679A	I _C =2A; V _{CE} =3V	750			
		BD681	I _C =1.5A; V _{CE} =3V	750			

PACKAGE OUTLINE

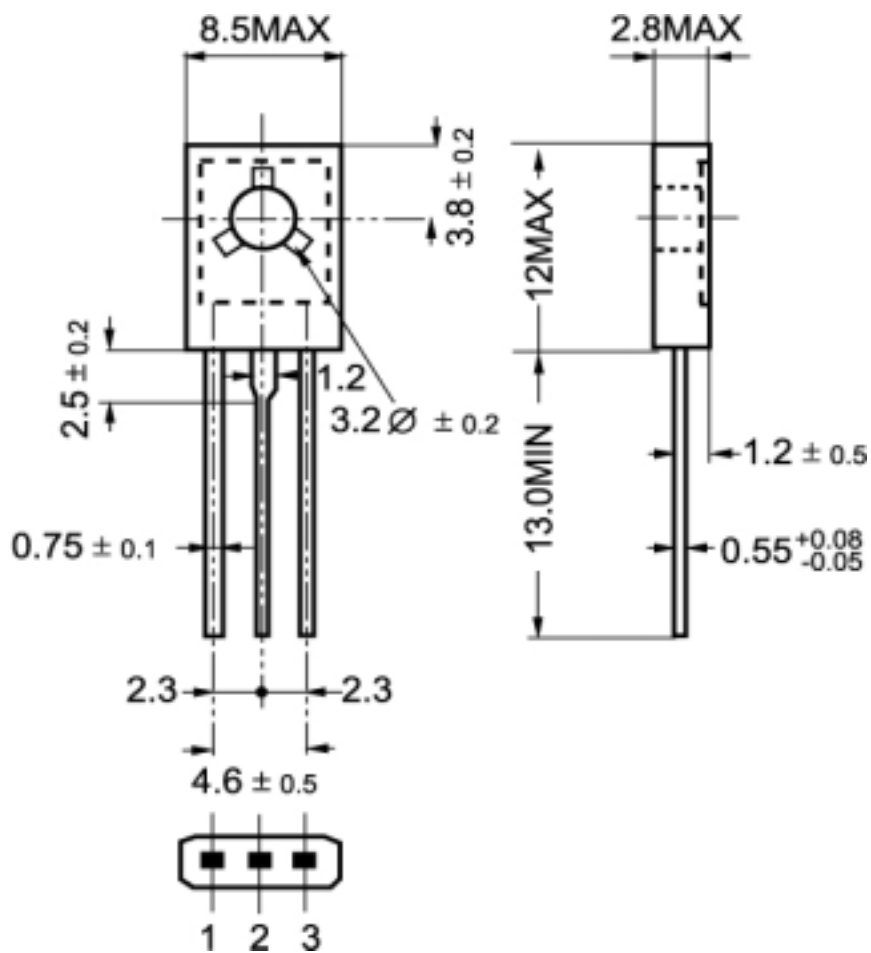


Fig.2 Outline dimensions