

Silicon PNP Power Transistors

BD176 BD178 BD180

DESCRIPTION

With TO-126 package

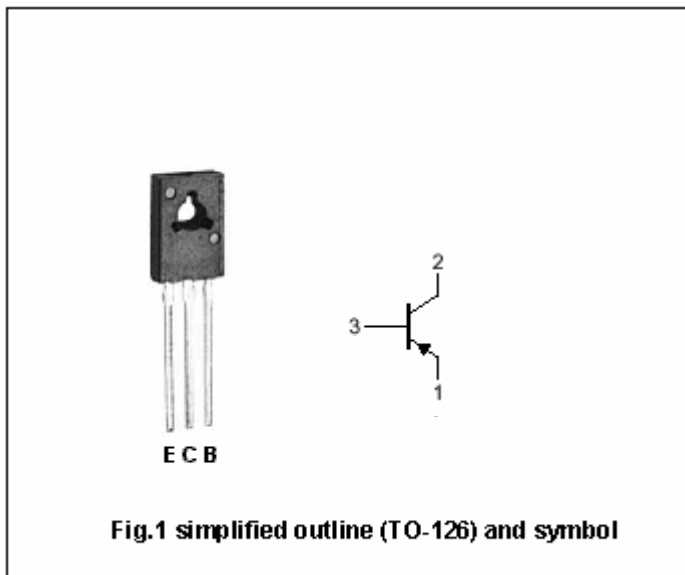
·Complement to type BD175 /177 /179

APPLICATIONS

·For medium power linear and switching applications

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BD176	-45	V
		BD178	-60	
		BD180	-80	
V _{CEO}	Collector-emitter voltage	BD176	-45	V
		BD178	-60	
		BD180	-80	
V _{EBO}	Emitter -base voltage	Open collector	-5	V
I _C	Collector current (DC)		-3	A
I _{CM}	Collector current-Peak		-7	A
P _C	Collector power dissipation	T _C =25°C	30	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

Silicon PNP Power Transistors

BD176 BD178 BD180

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEsat}	Collector-emitter saturation voltage	I _C =-1A; I _B =-0.1A			-0.8	V	
V _{BE}	Base-emitter on voltage	I _C =-1A; V _{CE} =-2V			-1.3	V	
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BD176	I _C =-0.1A; I _B =0	-45		V	
		BD178		-60			
		BD180		-80			
I _{CBO}	Collector cut-off current	BD176	V _{CB} =-45V; I _E =0			μA	
		BD178					V _{CB} =-60V; I _E =0
		BD180					V _{CB} =-80V; I _E =0
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-1	mA	
h _{FE-1}	DC current gain	I _C =-150mA; V _{CE} =-2V	40		250		
h _{FE-2}	DC current gain	I _C =-1A; V _{CE} =-2V	15				
f _T	Transition frequency	I _C =-250mA; V _{CE} =-10V	3			MHz	

◆ h_{FE-1} Classifications

6	10	16
40-100	63-160	100-250

□ classification 16 :only BD176

Silicon PNP Power Transistors

BD176 BD178 BD180

PACKAGE OUTLINE

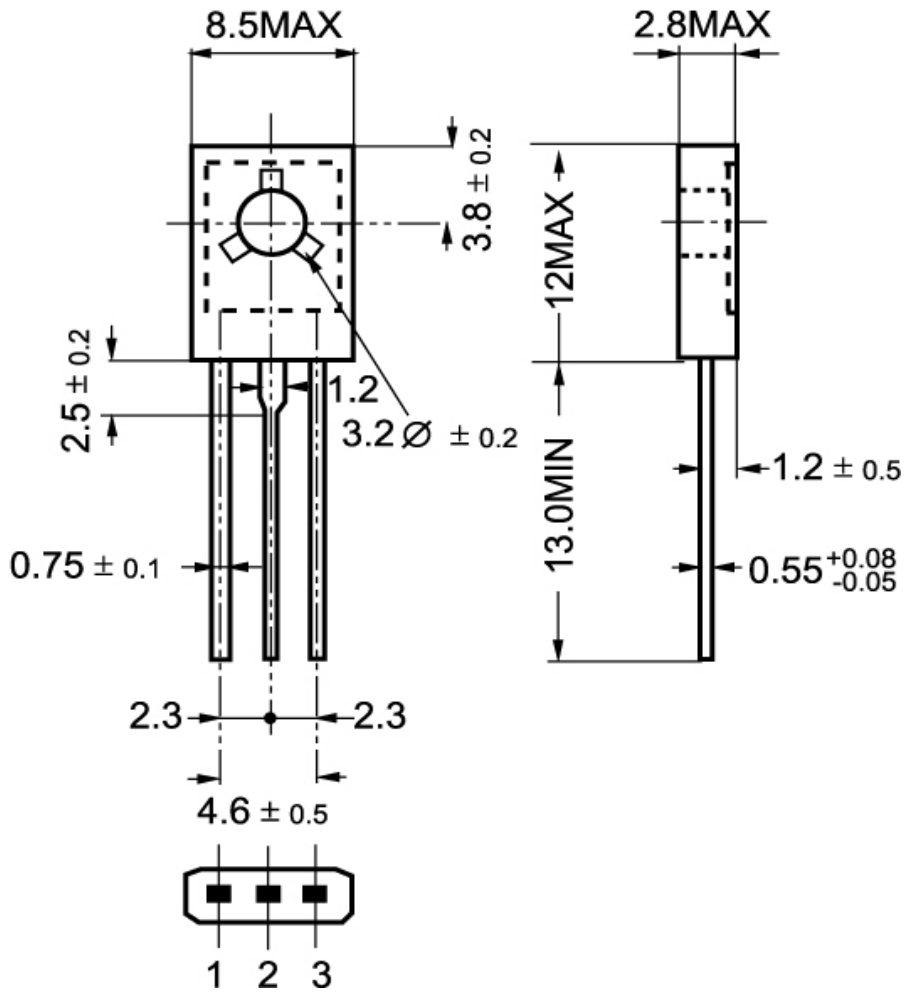


Fig.2 Outline dimensions