

Silicon NPN Power Transistors

BD175 BD177 BD179

DESCRIPTION

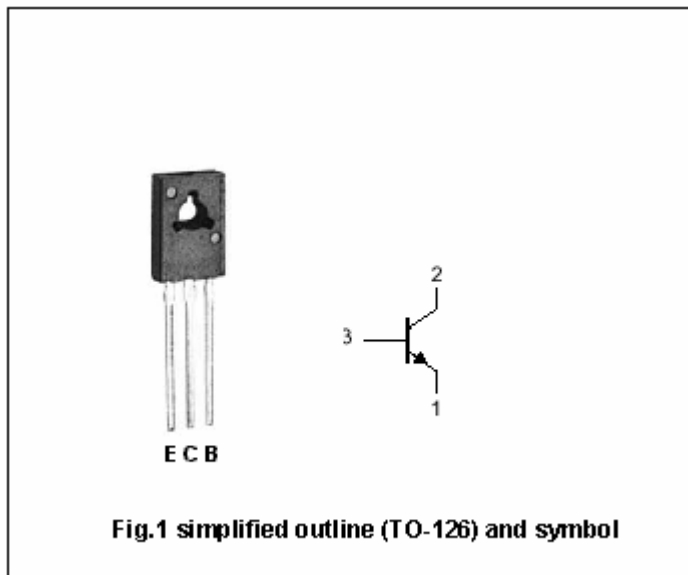
- With TO-126 package
- Complement to type BD176/178 /180

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)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BD175	45	V
		BD177	60	
		BD179	80	
V _{CEO}	Collector-emitter voltage	BD175	45	V
		BD177	60	
		BD179	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	30	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 _{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	BD175	I _C =0.1A; I _B =0			V	
		BD177					45
		BD179					60
I _{CBO}	Collector cut-off current	BD175	V _{CB} =45V; I _E =0			μ A	
		BD177					V _{CB} =60V; I _E =0
		BD179					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 BD175

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PACKAGE OUTLINE

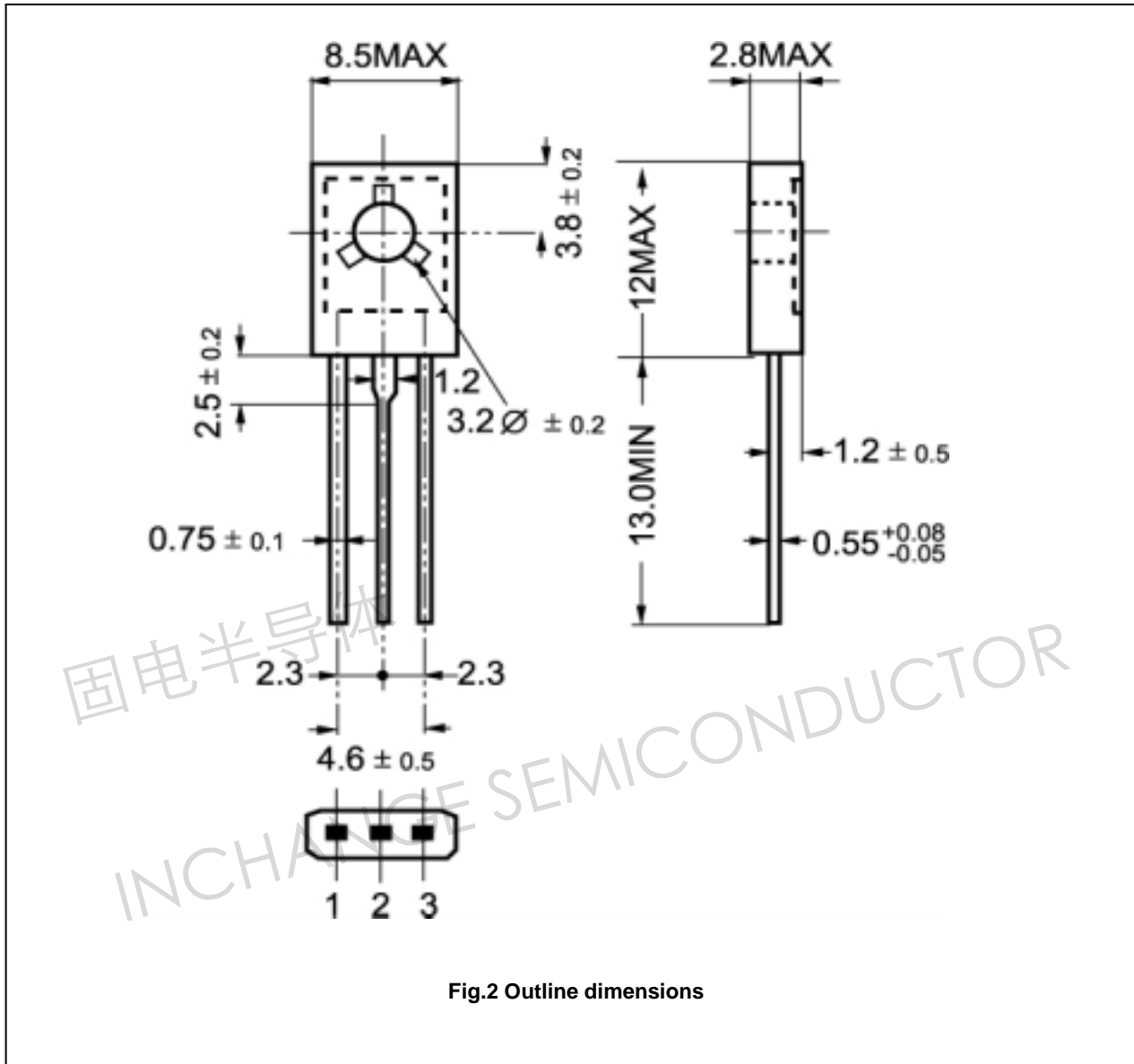


Fig.2 Outline dimensions