

Silicon NPN Power Transistors

BD233 BD235 BD237

DESCRIPTION

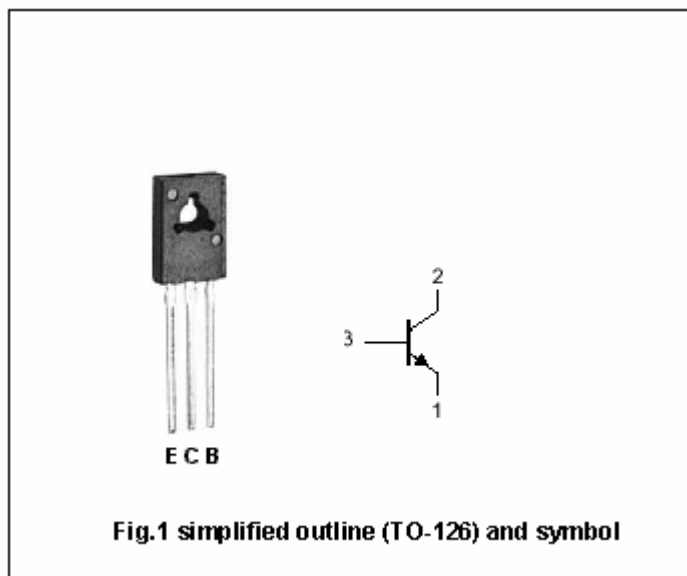
- With TO-126 package
- Complement to type BD234 /236 /238

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	BD233	Open emitter	45	V
		BD235		60	
		BD237		100	
V_{CEO}	Collector-emitter voltage	BD233	Open base	45	V
		BD235		60	
		BD237		80	
V_{EBO}	Emitter -base voltage		Open collector	5	V
I_C	Collector current (DC)			2	A
I_{CM}	Collector current-Peak			6	A
P_C	Collector power dissipation		$T_C=25^{\circ}\text{C}$	25	W
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-65~150	℃

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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			0.6	V
V _{BE}	Base-emitter on voltage		I _C =1A; V _{CE} =2V			1.3	V
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BD233	I _C =0.1A; I _B =0	45			V
		BD235		60			
		BD237		80			
I _{CBO}	Collector cut-off current	BD233	V _{CB} =45V; I _E =0			100	μA
		BD235	V _{CB} =60V; I _E =0				
		BD237	V _{CB} =100V; 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			
h _{FE-2}	DC current gain		I _C =1A; V _{CE} =2V	25			
f _T	Transition frequency		I _C =250mA; V _{CE} =10V	3			MHz

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PACKAGE OUTLINE

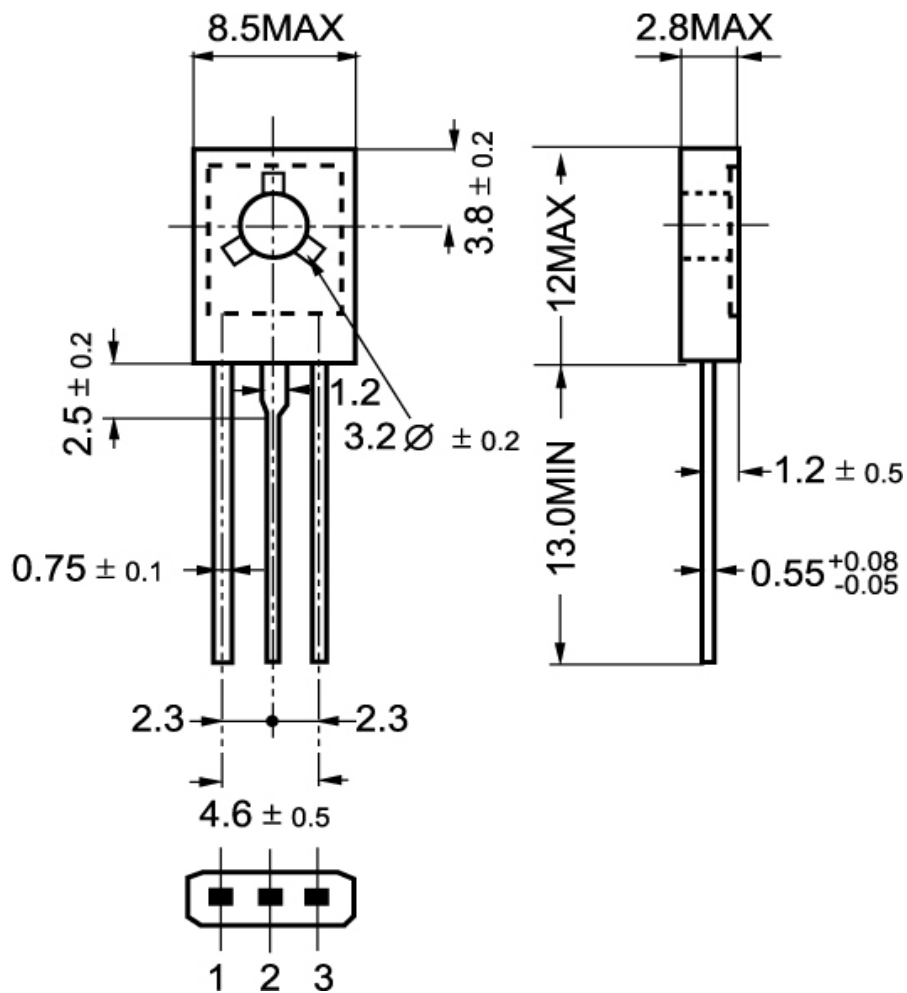


Fig.2 Outline dimensions