

Silicon NPN Power Transistors

BD533/535/537

DESCRIPTION

- With TO-220C package
- Complement to type BD534/536/538
- Low saturation voltage

APPLICATIONS

- For medium power linear and switching applications

PINNING

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

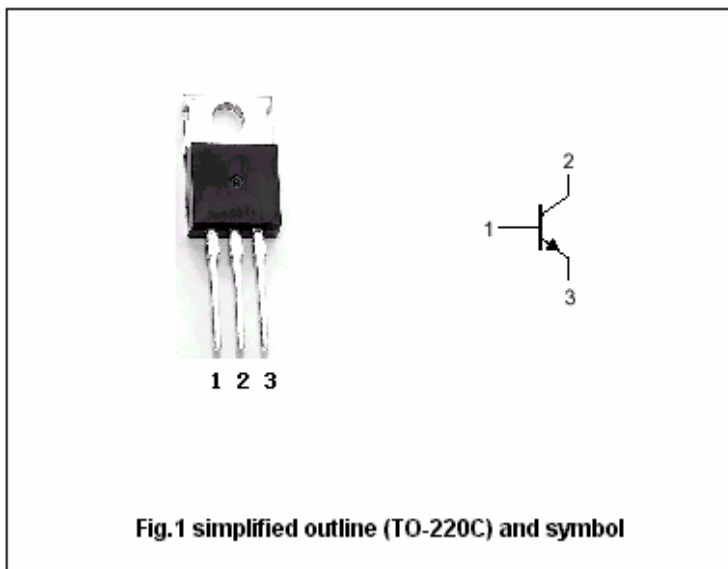


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BD533	45	V
		BD535	60	
		BD537	80	
V _{CEO}	Collector-emitter voltage	BD533	45	V
		BD535	60	
		BD537	80	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		8	A
I _E	Emitter current		8	A
I _B	Base current		1	A
P _C	Collector power dissipation	T _C =25°C	50	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =2 A; I _B =0.2 A			0.8	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =6 A; I _B =0.6 A		0.8		V
V _{BE}	Base-emitter on voltage		I _C =2A ; V _{CE} =2V			1.5	V
I _{CBO}	Collector cut-off current	BD533	V _{CB} =45V; I _E =0			0.1	mA
		BD535	V _{CB} =60V; I _E =0				
		BD537	V _{CB} =80V; I _E =0				
I _{CES}	Collector cut-off current	BD533	V _{CE} =45V; V _{BE} =0			0.1	mA
		BD535	V _{CE} =60V; V _{BE} =0				
		BD537	V _{CE} =80V; V _{BE} =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1	mA
h _{FE-1}	DC current gain	BD533/535	I _C =10mA ; V _{CE} =5V	20			
		BD537		15			
h _{FE-2}	DC current gain		I _C =0.5A ; V _{CE} =2V	40			
h _{FE-3}	DC current gain (All device)	Group: J	I _C =2A ; V _{CE} =2V	30		75	
		Group: K		40		100	
h _{FE-4}	DC current gain (All device)	Group: J	I _C =3A ; V _{CE} =2V	15			
		Group: K		20			
f _T	Transition frequency		I _C =0.5A ; V _{CE} =1V	3	12		MHz

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)