

Silicon NPN Power Transistors

BD533/535/537

DESCRIPTION

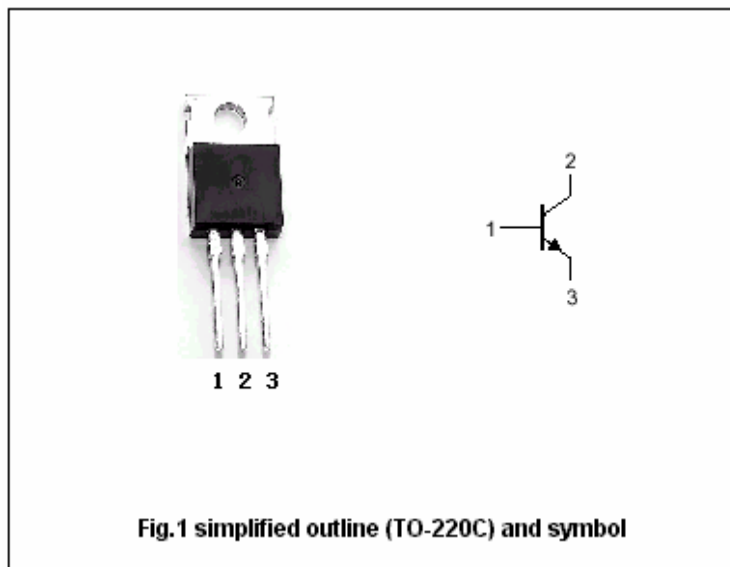
- With TO-220C package
- Complement to type BD534/536/538
- Low saturation voltage

APPLICATIONS

- For medium power linear and switching applications

PINNING

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BD533	Open emitter	45	V
		BD535		60	
		BD537		80	
V_{CEO}	Collector-emitter voltage	BD533	Open base	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		$T_C=25^{\circ}\text{C}$	50	W
T_j	Junction temperature			150	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-65~150	$^{\circ}\text{C}$

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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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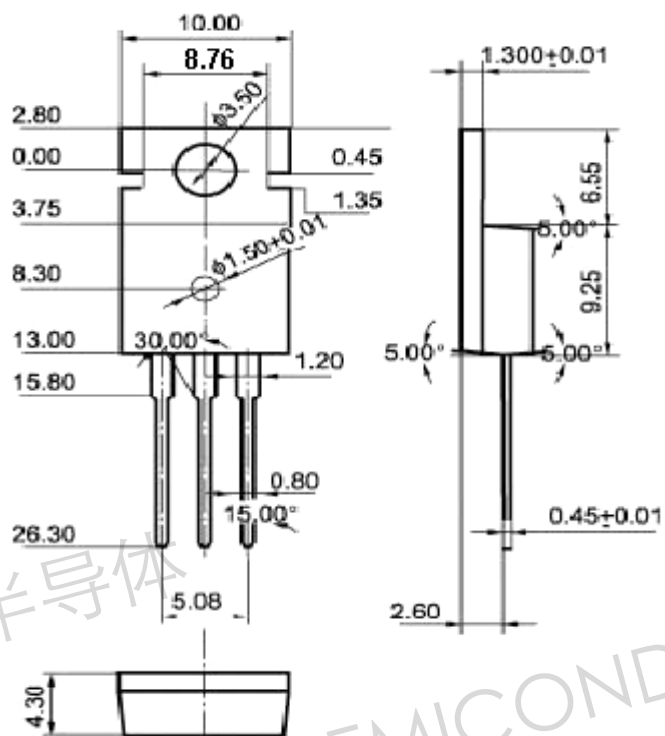


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)