

Silicon NPN Power Transistors

BD543/A/B/C

DESCRIPTION

- With TO-220C package
- Complement to type BD544/A/B/C
- 8 A continuous collector current
- 10 A peak Collector current

PINNING

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

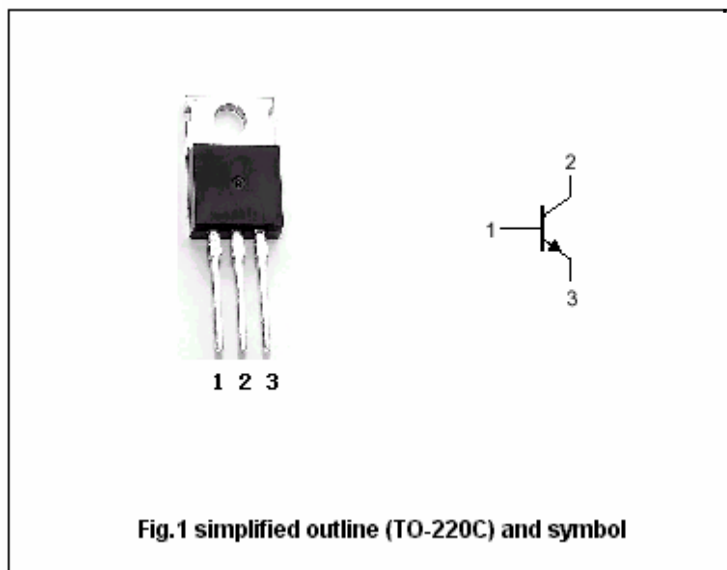


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BD543	40	V
		BD543A	60	
		BD543B	80	
		BD543C	100	
V _{CEO}	Collector-emitter voltage	BD543	40	V
		BD543A	60	
		BD543B	80	
		BD543C	100	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		8	A
I _{CM}	Collector current-peak		10	A
P _C	Collector power dissipation	T _C =25	70	W
T _j	Junction temperature		-65~150	
T _{stg}	Storage temperature		-65~150	

Silicon NPN Power Transistors

BD543/A/B/C

CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	BD543	I _C =30mA ; I _B =0	40			V
		BD543A		60			
		BD543B		80			
		BD543C		100			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =3A ; I _B =0.3A			0.5	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =5A ; I _B =1A			0.5	V
V _{CEsat-3}	Collector-emitter saturation voltage		I _C =8A ; I _B =1.6A			1	V
V _{BE}	Base-emitter on voltage		I _C =5A ; V _{CE} =4V			1.6	V
I _{CEO}	Collector cut-off current	BD543/543A	V _{CE} =30V; I _B =0			0.7	mA
		BD543B/543C	V _{CE} =60V; I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1	mA
h _{FE-1}	DC current gain		I _C =1A ; V _{CE} =4V	60			
h _{FE-2}	DC current gain		I _C =3A ; V _{CE} =4V	40			
h _{FE-3}	DC current gain		I _C =5A ; V _{CE} =4V	15			
Switching times							
t _{on}	Turn-on time		I _C =6A; I _{B1} =-I _{B2} =0.6A R _L =5		0.6		μs
t _{off}	Turn-off time				1.0		μs

Silicon NPN Power Transistors

BD543/A/B/C

PACKAGE OUTLINE

