

Silicon NPN Power Transistors

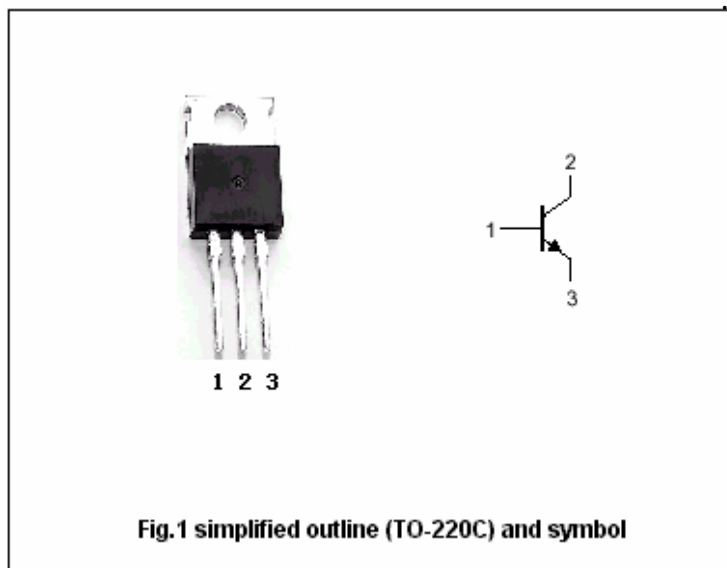
BD543/A/B/C

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



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	40	V
			60	
			80	
			100	
V_{CEO}	Collector-emitter voltage	Open base	40	V
			60	
			80	
			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	$T_C=25^{\circ}\text{C}$	70	W
T_j	Junction temperature		-65~150	$^{\circ}\text{C}$
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
$V_{(BR)CEO}$	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		$I_C=6A ;$ $I_{B1}=-I_{B2}=0.6A$ $R_L=5\Omega$		0.6		μs
t_{off}	Turn-off time				1.0		μs

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PACKAGE OUTLINE

