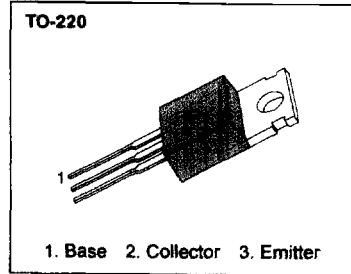


**POWER DARLINGTON TR  
HAMMER DRIVERS, AUDIO AMPLIFIERS  
APPLICATION  
POWER LINER AND SWITCHING  
APPLICATIONS**

• Complement to BDX53, BDX53A, BDX53B and BDX53C respectively



**ABSOLUTE MAXIMUM RATINGS**

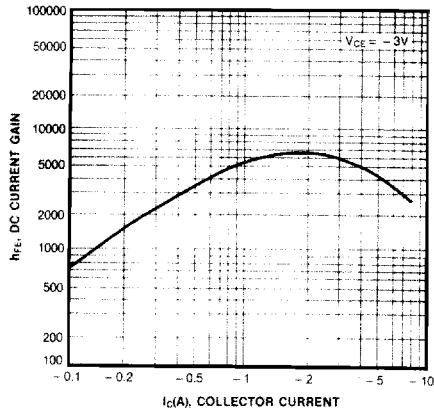
Characteristic	Symbol	Rating	Unit
Collector Base Voltage : BDX54	$V_{CBO}$	- 45	V
: BDX54A		- 60	V
: BDX54B		- 80	V
: BDX54C		- 100	V
Collector Emitter Voltage : BDX54	$V_{CEO}$	- 45	V
: BDX54A		- 60	V
: BDX54B		- 80	V
: BDX54C		- 100	V
Emitter Base Voltage	$V_{EBO}$	- 5	V
Collector Current (DC)	$I_C$	- 8	A
Collector Current (Pulse)	$I_C$	- 12	A
Base Current	$I_B$	- 0.2	A
Collector Dissipation ( $T_c=25^\circ C$ )	$P_C$	60	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{STG}$	-65 ~ 150	$^\circ C$

**ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ C$ )**

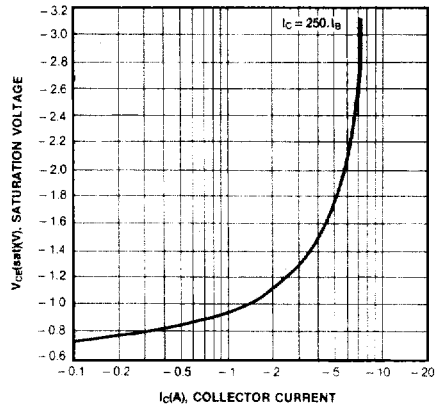
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit	
*Collector Emitter Sustaining Voltage : BDX54	$V_{CEO(sus)}$	$I_C = - 100mA, I_B = 0$	- 45			V	
: BDX54A			- 60			V	
: BDX54B			- 80			V	
: BDX54C			- 100			V	
Collector Cutoff Current : BDX54	$I_{CBO}$	$V_{CB} = - 45V, I_E = 0$			- 200	$\mu A$	
: BDX54A			$V_{CB} = - 60V, I_E = 0$			- 200	$\mu A$
: BDX54B			$V_{CB} = - 80V, I_E = 0$			- 200	$\mu A$
: BDX54C			$V_{CB} = - 100V, I_E = 0$			- 200	$\mu A$
Collector Cutoff Current : BDX54	$I_{CEO}$	$V_{CE} = - 22V, I_B = 0$			- 500	$\mu A$	
: BDX54A			$V_{CE} = - 30V, I_B = 0$			- 500	$\mu A$
: BDX54B			$V_{CE} = - 40V, I_B = 0$			- 500	$\mu A$
: BDX54C			$V_{CE} = - 50V, I_B = 0$			- 500	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = - 5V, I_C = 0$			- 2	mA	
*DC Current Gain	$h_{FE}$	$V_{CE} = - 3V, I_C = - 3A$	750				
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = - 3A, I_B = - 12mA$			- 2	V	
*Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = - 3A, I_B = - 12mA$			- 2.5	V	
Parallel Diode Forward Voltage	$V_F$	$I_F = - 3A$		- 1.8	- 2.5	V	
			$I_F = - 8A$		- 2.5	V	

\* Pulse Test : PW =300uS, duty Cycle =1.5% Pulsed

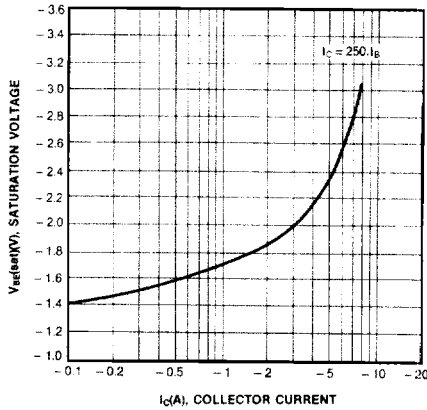
DC CURRENT GAIN



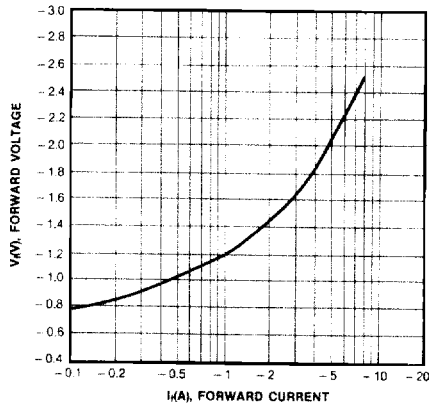
COLLECTOR EMITTER SATURATION VOLTAGE



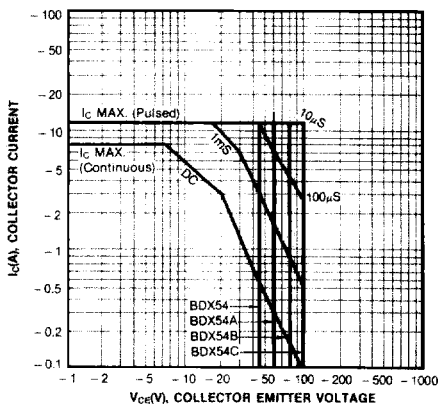
BASE EMITTER SATURATION VOLTAGE



DAMPER DIODE FORWARD VOLTAGE



SAFE OPERATING AREA



POWER DERATING

