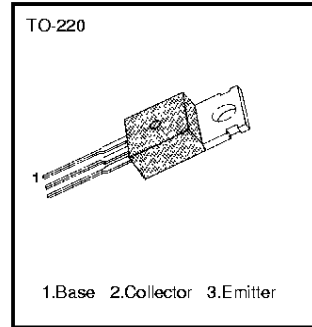


**POWER DARLINGTON TR
HAMMER DRIVERS, AUDIO AMPLIFIERS
APPLICATION
POWER LINER AND SWITCHING
APPLICATIONS**

- Complement to BDX54, BDX54A, BDX54B and BDX54C respectively

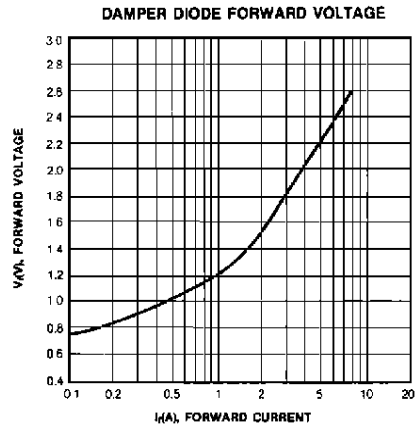
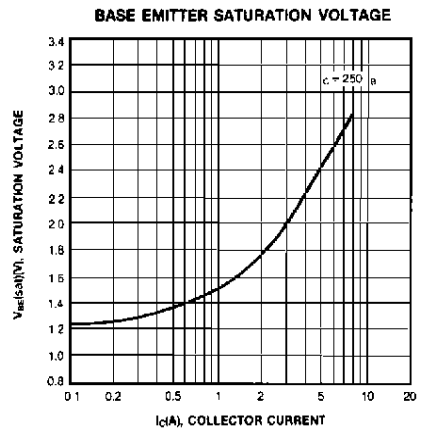
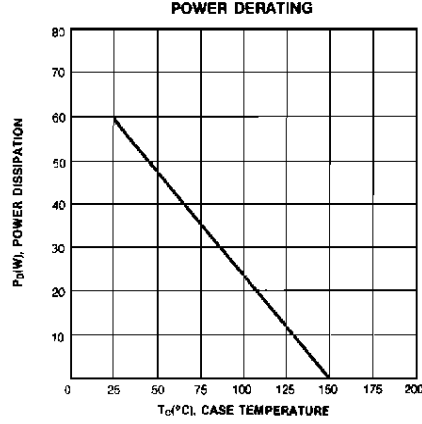
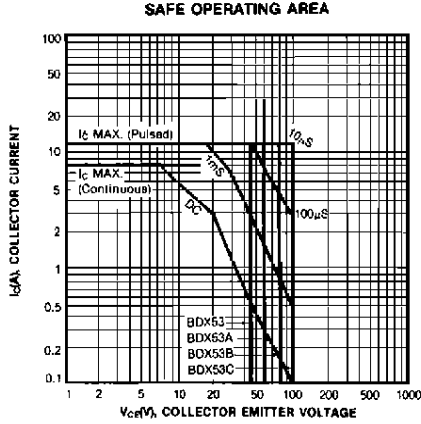
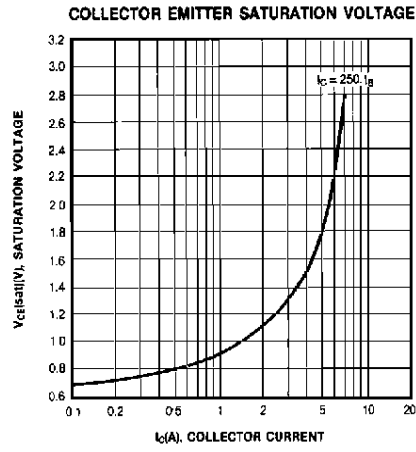
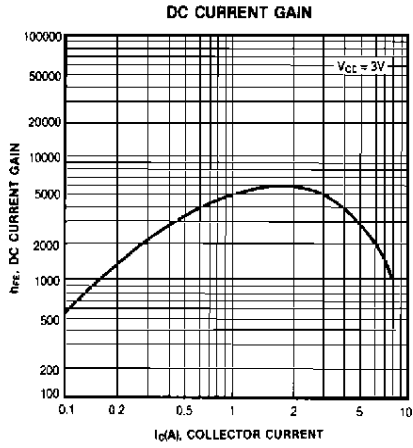
ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage : BDX53	V_{CBO}	45	V
: BDX53A		60	V
: BDX53B		80	V
: BDX53C		100	V
Collector Emitter Voltage : BDX53	V_{CEO}	45	V
: BDX53A		60	V
: BDX53B		80	V
: BDX53C		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 ($T_C=25^\circ\text{C}$)	P_C	60	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)**

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
*Collector Emitter Sustaining Voltage : BDX53	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0$	45			V
: BDX53A			60			V
: BDX53B			80			V
: BDX53C			100			V
Collector Cutoff Current : BDX53	I_{CBO}	$V_{CB} = 45\text{V}, I_E = 0$			200	μA
: BDX53A		$V_{CB} = 60\text{V}, I_E = 0$			200	μA
: BDX53B		$V_{CB} = 80\text{V}, I_E = 0$			200	μA
: BDX53C		$V_{CB} = 100\text{V}, I_E = 0$			200	μA
Collector Cutoff Current : BDX53	I_{CEO}	$V_{CE} = 22\text{V}, I_B = 0$			500	μA
: BDX53A		$V_{CE} = 30\text{V}, I_B = 0$			500	μA
: BDX53B		$V_{CE} = 40\text{V}, I_B = 0$			500	μA
: BDX53C		$V_{CE} = 50\text{V}, I_B = 0$			500	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			2	mA
*DC Current Gain	h_{FE}	$V_{CE} = 3\text{V}, I_C = 3\text{A}$	750			
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 3\text{A}, I_B = 12\text{mA}$			2	V
*Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 3\text{A}, I_B = 12\text{mA}$			2.5	V
Parallel Diode Forward Voltage	V_f	$I_f = 3\text{A}$		1.8	2.5	V
		$I_f = 8\text{A}$		2.5		V

* Pulse Test: $PW=300\mu\text{s}$, duty Cycle = 1.5% Pulsed



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