

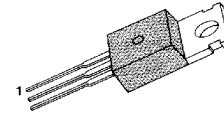
**POWER DARLINGTON TR
HAMMER DRIVERS, AUDIO AMPLIFIERS
APPLICATION
POWER LINER AND SWITCHING
APPLICATIONS**

• 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 ($T_C=25^\circ\text{C}$)	P_C	60	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

TO-220



1.Base 2.Collector 3.Emitter

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
*Collector Emitter Sustaining Voltage : BDX54	$V_{CEO(SUS)}$	$I_C = -100\text{mA}, I_B = 0$	- 45			V
: BDX54A			- 60			V
: BDX54B			- 80			V
: BDX54C			- 100			V
Collector Cutoff Current : BDX54	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$			- 200	μA
: BDX54A		$V_{CB} = -60\text{V}, I_E = 0$			- 200	μA
: BDX54B		$V_{CB} = -80\text{V}, I_E = 0$			- 200	μA
: BDX54C		$V_{CB} = -100\text{V}, I_E = 0$			- 200	μA
Collector Cutoff Current : BDX54	I_{CEO}	$V_{CE} = -22\text{V}, I_B = 0$			- 500	μA
: BDX54A		$V_{CE} = -30\text{V}, I_B = 0$			- 500	μA
: BDX54B		$V_{CE} = -40\text{V}, I_B = 0$			- 500	μA
: BDX54C		$V_{CE} = -50\text{V}, I_B = 0$			- 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 μs , duty Cycle =1.5% Pulsed