

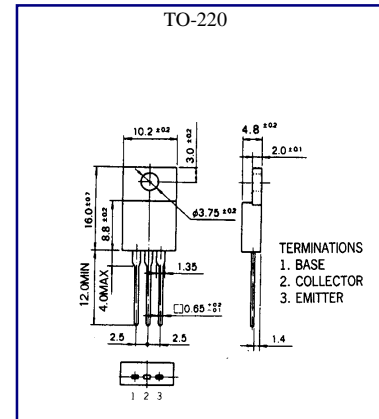


## BDX53/A/B/C

## NPN EPITAXIAL SILICON TRANSISTOR

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

●Complementary to BDX54/54A/54B/54C respectively



### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage :BDX53	VCBO	45	V
:BDX53A		60	V
:BDX53B		80	V
:BDX53C		100	V
Collector-Emitter Voltage :BDX53	VCEO	45	V
:BDX53A		60	V
:BDX53B		80	V
:BDX53C		100	V
Emitter-Base voltage	VEBO	5	V
Collector Current (DC)	IC	8	A
Collector Current (Pulse)	IC	12	A
Base Current (DC)	IB	0.2	A
Collector Dissipation (Tc=25°C)	PC	60	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-50~150	°C

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### ELECTRICAL CHARACTERISTICS (Ta=25°C)

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