

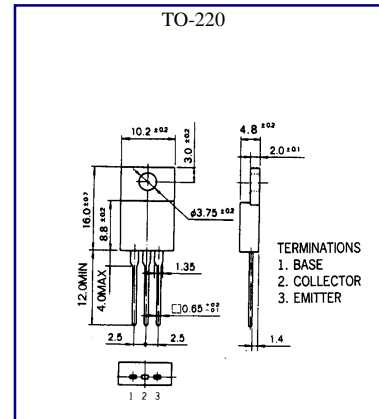


BDX53/A/B/C

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	μA μA μA μA
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	μA μA μA μA
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