



### Complementary Silicon Power Darlington Ttransistors

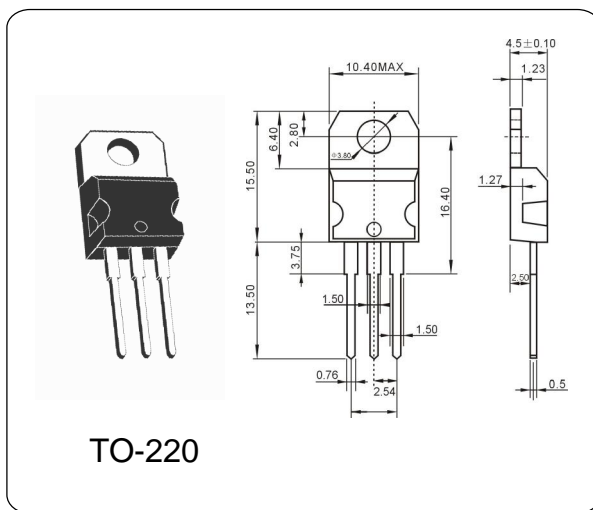
### BDX53C / BDX54C

#### DESCRIPTION

The BDX53C are silicon Epitaxial-Base NPN power transistors in monolithic Darlington configuration mounted in Jedec TO-220 plastic package. They are intended for use in hammer drivers, audio amplifiers and other medium power linear and switching applications. The complementary PNP types are BDX54C respectively.

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	8.0	A
Base Current	$I_B$	0.2	A
Total Dissipation at	$P_{tot}$	60	W
Max. Operating Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~150	°C



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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$	—	—	0.2	mA
Collector Cut-off Current	$I_{CEO}$	$V_{CE}=50V, I_B=0$	—	—	0.5	mA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5.0V, I_C=0$	—	—	2.0	mA
Collector-Emitter Sustaining Voltage	$V_{CEO}$	$I_C=100mA, I_B=0$	100	—	—	V
DC Current Gain	$h_{FE}$	$V_{CE}=3V, I_C=3.0A$	750	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3.0A, I_B=12mA$	—	—	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3.0A, I_B=12mA$	—	—	2.5	V
Parallel-diode Forward Voltage	$V_F$	$I_F=3A$	—	—	2.5	V