



BDX62, A, B, C

PNP SILICON DARLINGTONS

General purpose darlingtonts designed for power amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	<i>Collector-Emitter Voltage</i>		BDX62 -60	V
			BDX62A -80	
			BDX62B -100	
			BDX62C -120	
V_{CEV}	<i>Collector-Emitter Voltage</i>	$V_{BE} = -1.5 \text{ V}$	BDX62 -60	V
			BDX62A -80	
			BDX62B -100	
			BDX62C -120	
V_{EBO}	<i>Emitter-Base Voltage</i>		BDX62 BDX62A BDX62B BDX62C -5.0	V
I_C	<i>Collector Current</i>	$I_{C(RMS)}$	BDX62 BDX62A BDX62B BDX62C -8	A
		I_{CM}	BDX62 BDX62A BDX62B BDX62C -12	
I_B	<i>Base Current</i>		BDX62 BDX62A BDX62B BDX62C -0.15	A
P_T	<i>Power Dissipation</i>	@ $T_C = 25^\circ$	BDX62 BDX62A BDX62B BDX62C 90	Watts W/°C
T_J	<i>Junction Temperature</i>		BDX62 BDX62A BDX62B BDX62C -55 to +200	°C
T_S	<i>Storage Temperature</i>			



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THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case BDX62 BDX62A BDX62B BDX62C	1.94	°C/W

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit	
$V_{CEO(SUS)}$	Collector-Emitter Breakdown Voltage (*)	$I_C=-0.1\text{ A}$, $I_B=0$, $L=25\text{mH}$	BDX62	-60	-	-	V
			BDX62A	-80	-	-	
			BDX62B	-100	-	-	
			BDX62C	-120	-	-	

I_{CEO}	Collector Cutoff Current	$V_{CE}=-30\text{ V}$	BDX62	-	-	-0.5	mA
		$V_{CE}=-40\text{ V}$	BDX62A	-	-		
		$V_{CE}=-50\text{ V}$	BDX62B	-	-		
		$V_{CE}=-60\text{ V}$	BDX62C	-	-		

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I_{EBO}	Emitter Cutoff Current	$V_{BE}=-5\text{ V}$	BDX62 BDX62A BDX62B BDX62C	-	-	-5.0	mA
I_{CBO}	Collector-Base Cutoff Current	$V_{CBO}=-60\text{ V}$	BDX62	-	-	-0.2	-
		$V_{CBO}=-40\text{ V}$ $T_{CASE}=200^{\circ}\text{C}$		-	-	-2	
		$V_{CBO}=-80\text{ V}$	BDX62A	-	-	-0.2	
		$V_{CBO}=-50\text{ V}$ $T_{CASE}=200^{\circ}\text{C}$		-	-	-2	
		$V_{CBO}=-100\text{ V}$	BDX62B	-	-	-0.2	
		$V_{CBO}=-60\text{ V}$ $T_{CASE}=200^{\circ}\text{C}$		-	-	-2	
		$V_{CBO}=-120\text{ V}$	BDX62C	-	-	-0.2	
		$V_{CBO}=-70\text{ V}$ $T_{CASE}=200^{\circ}$		-	-	-2	

$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C=-3.0\text{ A}, I_B=-12\text{ mA}$	BDX62 BDX62A BDX62B BDX62C	-	-	-2	V
V_F	Forward Voltage (pulse method)	$I_F=3\text{ A}$	BDX62 BDX62A BDX62B BDX62C	-	-	-2.5	V
V_{BE}	Base-Emitter Voltage (*)	$I_C=-3.0\text{ A}, V_{CE}=-3\text{ V}$	BDX62 BDX62A BDX62B BDX62C	-	-	-	V
f_{hfe}	Cut-off frequency	$V_{CE}=3\text{ V}, I_C=3\text{ A}$	BDX62 BDX62A BDX62B BDX62C	-	100	-	kHz

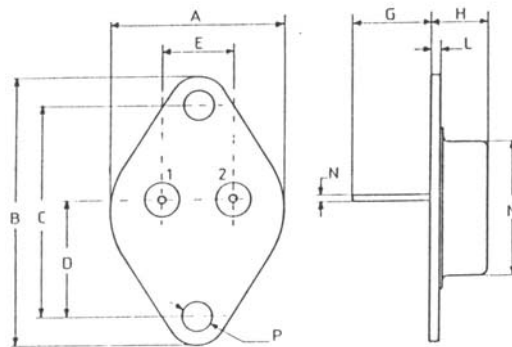
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f_T	Transition Frequency	$V_{CE}=-3\text{ V}$, $I_C=-3\text{ A}$, $f=1\text{ MHz}$	BDX62 BDX62A BDX62B BDX62C	-	7	-	MHz
h_{FE}	D.C. current gain (*)	$V_{CE}=-3\text{ V}$, $I_C=-0.5\text{ A}$	BDX62 BDX62A BDX62B BDX62C	-	1500	-	
		$V_{CE}=-3\text{ V}$, $I_C=-3\text{ A}$	BDX62 BDX62A BDX62B BDX62C	1000	-	-	-
		$V_{CE}=-3\text{ V}$, $I_C=-8\text{ A}$	BDX62 BDX62A BDX62B BDX62C	-	750	-	

(*) Pulse Width $\approx 300\ \mu\text{s}$, Duty Cycle $\angle 2.0\%$
 (1) collector-Emitter voltage limited et $V_{CEci} = V$
 rated by an auxiliary circuit

MECHANICAL DATA CASE TO-3

DIMENSIONS		
	mm	inches
A	25,51	1,004
B	38,93	1,53
C	30,12	1,18
D	17,25	0,68
E	10,89	0,43
G	11,62	0,46
H	8,54	0,34
L	1,55	0,6
M	19,47	0,77
N	1	0,04
P	4,06	0,16



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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