BDX62 – A – B – C

PNP SILICON DARLINGTON POWER TRANSISTOR

The BDX62, BDX62A, BDX62B and BDX62C are mounted in TO-3 metal package.
High current power darlingtons designed for power amplification and switching applications.
The complementary NPN are BDX63, BDX63A, BDX63B, BDX63C.
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

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

THERMAL CHARACTERISTICS

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

BDX62 – A – B – C

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
$V_{CEO(SUS)}$	Collector-Emitter Breakdown Voltage (*)	I_C=-0.1 A I_B=0 L=25mH	BDX62	-60	-	-	V
			BDX62A	-80	-	-	
			BDX62B	-100	-	-	
			BDX62C	-120	-	-	
I_{CEO}	Collector Cutoff Current	V_{CE}=-30 V	BDX62	-	-	-0.5	mA
		V_{CE}=-40 V	BDX62A	-	-		
		V_{CE}=-50 V	BDX62B	-	-		
		V_{CE}=-60 V	BDX62C	-	-		
I_{EBO}	Emitter Cutoff Current	V_{BE}=-5 V	BDX62	-	-	-5.0	mA
			BDX62A				
			BDX62B				
			BDX62C				
I_{CBO}	Collector-Base Cutoff Current	V_{CBO}=-60 V	BDX62	-	-	-0.2	-
		V_{CBO}=-40 V T_{CASE}=200°C		-	-	-2	
		V_{CBO}=-80 V	BDX62A	-	-	-0.2	
		V_{CBO}=-50 V T_{CASE}=200°C		-	-	-2	
		V_{CBO}=-100 V	BDX62B	-	-	-0.2	
		V_{CBO}=-60 V T_{CASE}=200°C		-	-	-2	
		V_{CBO}=-120 V	BDX62C	-	-	-0.2	
		V_{CBO}=-70 V T_{CASE}=200°		-	-	-2	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C=-3.0 A I_B=-12 mA	BDX62	-	-	-2	V
			BDX62A				
			BDX62B				
			BDX62C				
V_F	Forward Voltage (pulse method)	I_F=3 A	BDX62	-	-	-2.5	V
			BDX62A				
			BDX62B				
			BDX62C				
V_{BE}	Base-Emitter Voltage (*)	I_C=-3.0 A V_{CE}=-3V	BDX62	-	-	-	V
			BDX62A				
			BDX62B				
			BDX62C				

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
f_{hfe}	Cut-off frequency	V_{CE}=3 V $_{IC}$=3 A	BDX62 BDX62A BDX62B BDX62C	-	100	-	kHz
f_T	Transition Frequency	V_{CE}=-3 V, I_C=-3 A f=1 MHz	BDX62 BDX62A BDX62B BDX62C	-	7	-	MHz
h_{FE}	D.C. current gain (*)	V_{CE}=-3 V, I_C=-0.5 A	BDX62 BDX62A BDX62B BDX62C	-	1500	-	-
		V_{CE}=-3 V, I_C=-3 A	BDX62 BDX62A BDX62B BDX62C	1000	-	-	
		V_{CE}=-3 V, I_C=-8 A	BDX62 BDX62A BDX62B BDX62C	-	750	-	

(*) Pulse Width ≈ 300 μs, Duty Cycle ∠ 2.0%

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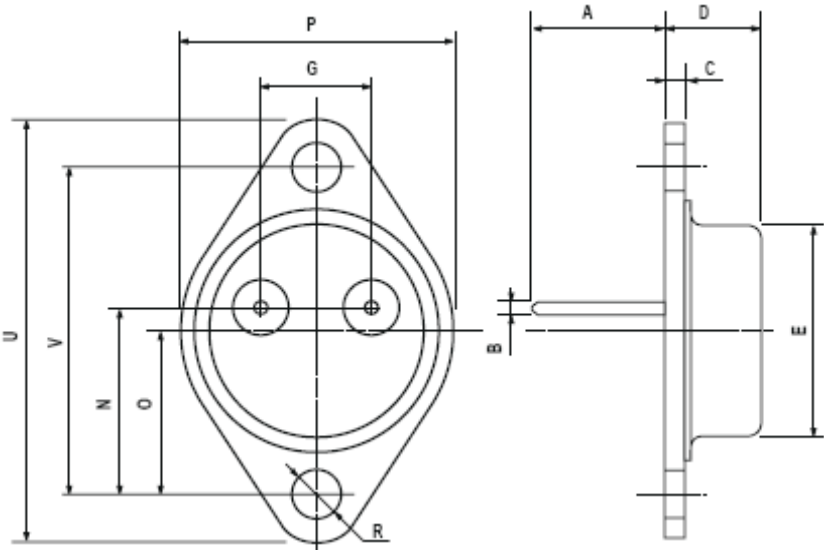
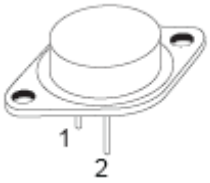
MECHANICAL DATA CASE TO-3

DIMENSIONS (mm)		
	min	max
A	11	13.10
B	0.97	1.15
C	1.5	1.65
D	8.32	8.92
F	19	20
G	10.70	11.1
N	16.50	17.20
P	25	26
R	4	4.09
U	38.50	39.30
V	30	30.30



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



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