

BDX64, 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>		BDX64 -60	V	
			BDX64A -80		
			BDX64B -100		
			BDX64C -120		
V_{CEV}	<i>Collector-Emitter Voltage</i>	$V_{BE} = -1.5 \text{ V}$	BDX64 -60	V	
			BDX64A -80		
			BDX64B -100		
			BDX64C -120		
V_{EBO}	<i>Emitter-Base Voltage</i>		BDX64 BDX64A BDX64B BDX64C -5.0	V	
I_C	<i>Collector Current</i>	$I_{C(RMS)}$	BDX64 BDX64A BDX64B BDX64C -12	A	
		I_{CM}	BDX64 BDX64A BDX64B BDX64C -16		
I_B	<i>Base Current</i>		BDX64 BDX64A BDX64B BDX64C 0.2	A	
P_T	<i>Power Dissipation</i>	@ $T_C = 25^\circ$	BDX64 BDX64A BDX64B BDX64C 117	Watts W/°C	
T_J	<i>Junction Temperature</i>		BDX64 BDX64A BDX64B BDX64C -55 to +200	°C	
T_S	<i>Storage Temperature</i>				



THERMAL CHARACTERISTICS

BDX64, A, B, C

Symbol	Ratings	Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case BDX64 BDX64A BDX64B BDX64C	1.5	°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 (*)	$I_C=-0.1\text{ A}, I_B=0, L=25\text{mH}$	BDX64	-60	-	-	V
			BDX64A	-80	-	-	
			BDX64B	-100	-	-	
			BDX64C	-120	-	-	
I_{CEO}	Collector Cutoff Current	$V_{CE}=-30\text{ V}$	BDX64	-	-	-1.0	mA
			BDX64A	-	-		
			BDX64B	-	-		
			BDX64C	-	-		
I_{EBO}	Emitter Cutoff Current	$V_{BE}=-5\text{ V}$	BDX64	-	-	-5.0	mA
			BDX64A	-	-		
			BDX64B	-	-		
			BDX64C	-	-		
I_{CBO}	Collector-Base Cutoff Current	$V_{CBO}=-60\text{ V}$	BDX64	-	-	0.2	-
		$V_{CBO}=-40\text{ V}$		-	-	2	
		$T_{CASE}=200^\circ\text{C}$	BDX64A	-	-	0.2	
		$V_{CBO}=-80\text{ V}$		-	-	2	
		$V_{CBO}=-50\text{ V}$	BDX64B	-	-	0.2	
		$T_{CASE}=200^\circ\text{C}$		-	-	2	
		$V_{CBO}=-100\text{ V}$	BDX64C	-	-	0.2	
		$V_{CBO}=-60\text{ V}$		-	-	2	
$T_{CASE}=200^\circ\text{C}$	-	-	0.2				
$V_{CBO}=-120\text{ V}$	BDX64C	-	-	0.2			
$V_{CBO}=-70\text{ V}$		-	-	2			
$T_{CASE}=200^\circ$	-	-	2				
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C=-5.0\text{ A}, I_B=-20\text{ mA}$	BDX64 BDX64A BDX64B BDX64C	-	-	-2	V
V_F	Forward Voltage (pulse method)	$I_F=5\text{ A}$	BDX64 BDX64A BDX64B BDX64C	-	1.8	-	V

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V_{BE}	Base-Emitter Voltage (*)	$I_C = -5.0 \text{ A}, V_{CE} = -3 \text{ V}$	BDX64 BDX64A BDX64B BDX64C	-	-	-2.5	V
F_{hfe}	Cut-off frequency	$-V_{CE} = 3 \text{ V}, -I_C = 5 \text{ A}$	BDX64 BDX64A BDX64B BDX64C	-	80	-	kHz
f_T	Transition Frequency	$V_{CE} = -3 \text{ V}, I_C = -5 \text{ A}, f = 1 \text{ MHz}$	BDX64 BDX64A BDX64B BDX64C	-	7	-	MHz
h_{FE}	D.C. current gain (*)	$-V_{CE} = -3 \text{ V}, -I_C = -1 \text{ A}$	BDX64 BDX64A BDX64B BDX64C	-	1500	-	-
		$-V_{CE} = -3 \text{ V}, -I_C = -5 \text{ A}$	BDX64 BDX64A BDX64B BDX64C	1000	-	-	-
		$-V_{CE} = -3 \text{ V}, -I_C = -12 \text{ A}$	BDX64 BDX64A BDX64B BDX64C	-	750	-	-

(*) Pulse Width $\approx 300 \mu\text{s}$, Duty Cycle $\leq 2.0\%$

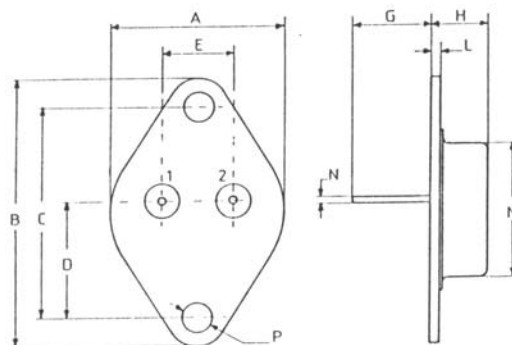
(1) collector-Emitter voltage limited et $V_{CEci} = V$

an auxiliary circuit

rated by

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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