

BDX67, A, B, C

NPN SILICON DARLINGTONS

High current power darlington transistors designed for power amplification and switching applications.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage	BDX67	60	V
		BDX67A	80	
		BDX67B	100	
		BDX67C	120	
V_{CBO}	Collector-Base Voltage	BDX67	80	V
		BDX67A	100	
		BDX67B	120	
		BDX67C	140	
V_{EBO}	Emitter-Base Voltage	BDX67 BDX67A BDX67B BDX67C	5.0	V
I_C	Collector Current	$I_{C(RMS)}$ BDX67 BDX67A BDX67B BDX67C	16	A
		I_{CM} BDX67 BDX67A BDX67B BDX67C	20	
I_B	Base Current	BDX67 BDX67A BDX67B BDX67C	0.25	A
P_T	Power Dissipation	@ $T_C = 25^\circ$ BDX67 BDX67A BDX67B BDX67C	150	Watts W/°C
T_J	Junction Temperature	BDX67 BDX67A BDX67B BDX67C	-55 to +200	°C
T_S	Storage Temperature			

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THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJ-C}	Thermal Resistance, Junction to Case	BDX67 BDX67A BDX67B BDX67C	1.17	°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 (*)	$I_C=0.1\text{ A}$, $L=25\text{mH}$	BDX67	60	-	-	V
			BDX67A	80	-	-	
			BDX67B	100	-	-	
			BDX67C	120	-	-	
I_{CEO}	Collector Cutoff Current	$V_{CE}=30\text{ V}$	BDX67	-	-	3	mA
		$V_{CE}=40\text{ V}$	BDX67A	-	-		
		$V_{CE}=50\text{ V}$	BDX67B	-	-		
		$V_{CE}=60\text{ V}$	BDX67C	-	-		
I_{EBO}	Emitter Cutoff Current	$V_{BE}=5\text{ V}$	BDX67 BDX67A BDX67B BDX67C	-	-	5.0	mA
I_{CBO}	Collector-Base Cutoff Current	$T_{CASE}=25^\circ\text{C}$, $V_{CB}=40\text{ V}$	BDX67	-	-	1	mA
		$T_{CASE}=150^\circ\text{C}$		-	-	5	
		$T_{CASE}=25^\circ\text{C}$, $V_{CB}=50\text{ V}$	BDX67A	-	-	1	
		$T_{CASE}=150^\circ\text{C}$		-	-	5	

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Symbol	Ratings	Test Condition(s)		Min	Typ	Mx	Unit
I_{CBO}	Collector-Base Cutoff Current	$T_{CASE}=25^{\circ}C, V_{CB}=60 V$	BDX67B	-	-	1	mA
		$T_{CASE}=150^{\circ}C$		-	-	5	
		$T_{CASE}=25^{\circ}C, V_{CB}=70 V$	BDX67C	-	-	1	
		$T_{CASE}=150^{\circ}C$		-	-	5	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C=10 A, I_B=40 mA$	BDX67 BDX67A BDX67B BDX67C	-	-	2	V
C_{22b}		$I_E=0 A, V_{CB}=10V, f=1 MHz$	BDX67 BDX67A BDX67B BDX67C	-	300	-	pF
t_{on}	Switching characteristics	$V_{CC}=12V, I_C=-10 A, I_{B1}=-I_{B2}=0.04 A$	BDX67 BDX67A BDX67B BDX67C	-	1	-	μs
t_{off}				-	3.5	-	
f_c		$V_{CE}=-3 V, I_C=-5 A, f=1 MHz$	BDX67 BDX67A BDX67B BDX67C	-	50	-	kHz

(*) Pulse Width $\approx 300 \mu s$, Duty Cycle $\angle 2.0\%$

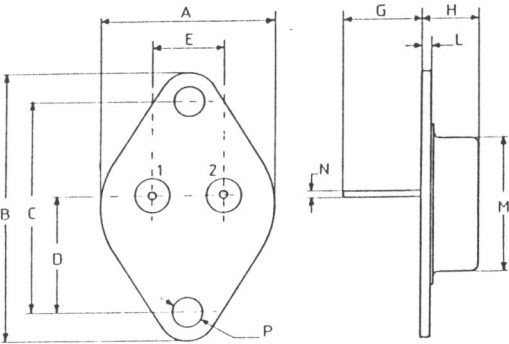
(1) collector-Emitter voltage limited et $V_{CEci} = V_{rated}$ by an auxiliary circuit

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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 :	Collector
Case :	Emitter



*Information furnished is believed to be accurate and reliable. However, CS assumes no responsibility for the consequences of use of such information nor for errors that could appear.
Data are subject to change without notice*