COMSET SEMICONDUCTORS

BDX67, A, B, C

NPN SILICON DARLINGTONS

High current power darlingtons 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°	**BDX67** **BDX67A** **BDX67B** **BDX67C**	150	Watts W/°C
T_J	Junction Temperature		**BDX67** **BDX67A**	-55 to +200	°C
T_S	Storage Temperature		**BDX67B** **BDX67C**		

BDX67, A, B, C

BDX67, A, B, C

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 A, L=25mH	**BDX67**	60	-	-	V
			BDX67A	80	-	-	
			BDX67B	100	-	-	
			BDX67C	120	-	-	
I_{CEO}	Collector Cutoff Current	V_{CE}=30 V	**BDX67**	-	-	3	mA
		V_{CE}=40 V	**BDX67A**	-	-		
		V_{CE}=50 V	**BDX67B**	-	-		
		V_{CE}=60 V	**BDX67C**	-	-		
I_{EBO}	Emitter Cutoff Current	V_{BE}=5 V	**BDX67 BDX67A BDX67B BDX67C**	-	-	5.0	mA
I_{CBO}	Collector-Base Cutoff Current	T_{CASE}=25°C, V_{CB}=40 V	**BDX67**	-	-	1	mA
		T_{CASE}=150°C		-	-	5	
		T_{CASE}=25°C, V_{CB}=50 V	**BDX67A**	-	-	1	
		T_{CASE}=150°C		-	-	5	

BDX67, A, B, C

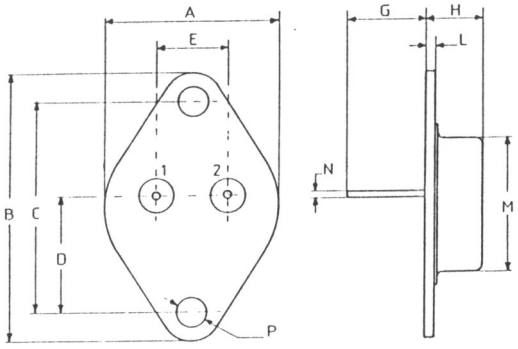
Symbol	Ratings	Test Condition(s)		Min	Typ	Mx	Unit
I_{CBO}	Collector-Base Cutoff Current	T_{CASE}=25°C, V_{CB}=60 V	**BDX67B**	-	-	1	mA
		T_{CASE}=150°C		-	-	5	
		T_{CASE}=25°C, V_{CB}=70 V	**BDX67C**	-	-	1	
		T_{CASE}=150°C		-	-	5	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C=10 A, I_B=40 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 ≈ 300 µs, Duty Cycle ∠ 2.0%
(1) collector-Emitter voltage limited et V_{CEci} = V rated by an auxiliary circuit

BDX67, A, B, C

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