BDV67-A-B-C-D

NPN SILICON DARLINGTONS POWER TRANSISTORS

They are silicon epitaxial base transistors mounted in TO-3PN.
Theyare designed for audio output stages and general amplifier and switching applications.
complementary is BDV66-A-B-C
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage	BDV67	60	V
		BDV67A	80	
		BDV67B	100	
		BDV67C	120	
		BDV67D	150	
V_{CBO}	Collector-Base Voltage	BDV67	80	V
		BDV67A	100	
		BDV67B	120	
		BDV67C	140	
		BDV67D	160	
V_{EBO}	Emitter-Base Voltage	BDV67	5.0	V
		BDV67A		
		BDV67B		
		BDV67C		
		BDV67D		
I_B	Base Current	BDV67	0.5	A
		BDV67A		
		BDV67B		
		BDV67C		
		BDV67D		
I_C	Collector Current	BDV67	16	A
		BDV67A		
		BDV67B		
		BDV67C		
		BDV67D		
I_{CM}		BDV67	20	
		BDV67A		
		BDV67B		
		BDV67C		
		BDV67D		

BDV67-A-B-C-D

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
P_T	Power Dissipation	@ T_{mb} = 25°C	BDV67	200	W
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		
T_J	Junction Temperature		BDV67	150	℃
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		
T_S	Storage Temperature		BDV67	-65 to +150	
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-mb}	Thermal Resistance, Junction to Mounting Base	0.625	℃ / W

SWITCHING TIMES

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
t_{on}	turn-on time	I_C= 10 A , V_{CC}= 12 V	-	1	-	µs
t_{off}	turn-off time	I_{B1} = -I_{B2} = 40 mA	-	3.5	-	

BDV67-A-B-C-D

ELECTRICAL CHARACTERISTICS

TC=25℃ unless otherwise noted

Symbol	Ratings	Test Condition(s)			Min	Typ	Mx	Unit
I_{CEO}	Collector Cutoff Current	V_{CE}= 30 V, I_B= 0		BDV67	-	-	1	mA
		V_{CE}= 40 V, I_B= 0		BDV67A	-	-		
		V_{CE}= 50 V, I_B= 0		BDV67B	-	-		
		V_{CE}= 60 V, I_B= 0		BDV67C	-	-		
		V_{CE}= 75 V, I_B= 0		BDV67D	-	-		
I_{EBO}	Emitter Cutoff Current	V_{BE}= 5 V, I_c= 0		BDV67	-	-	5.0	mA
				BDV67A	-	-		
				BDV67B	-	-		
				BDV67C	-	-		
				BDV67D	-	-		
I_{CBO}	Collector-Base Cutoff Current	I_B= 0 T_j=25℃	V_{CB}= 80 V	BDV67	-	-	1	mA
			V_{CB}= 100 V	BDV67A	-	-		
			V_{CB}= 120 V	BDV67B	-	-		
			V_{CB}= 140 V	BDV67C	-	-		
			V_{CB}= 160 V	BDV67D	-	-		
		I_B= 0 T_j=150° C	V_{CB}= 40 V	BDV67	-	-	4	
			V_{CB}= 50 V	BDV67A	-	-		
			V_{CB}= 60 V	BDV67B	-	-		
			V_{CB}= 70 V	BDV67C	-	-		
			V_{CB}= 80 V	BDV67D	-	-		
V_{CEO}	Collector-emitter Breakdown Voltage (*)	I_C= 30 mA, I_B= 0		BDV67	60	-	-	V
				BDV67A	80	-	-	
				BDV67B	100	-	-	
				BDV67C	120	-	-	
				BDV67D	150	-	-	
h_{FE}	DC Current Gain (*)	V_{CE}= 3 V, I_C= 1 A		BDV67 BDV67A	-	3000	-	-
		V_{CE}= 3 V, I_C= 10 A		BDV67B BDV67C	1000	-	-	
		V_{CE}= 3 V, I_C= 16 A		BDV67D	-	1000	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= 10 A, I_B= 40 mA		BDV67	-	-	2	V
				BDV67A				
				BDV67B				
				BDV67C				
				BDV67D				

BDV67-A-B-C-D

ELECTRICAL CHARACTERISTICS

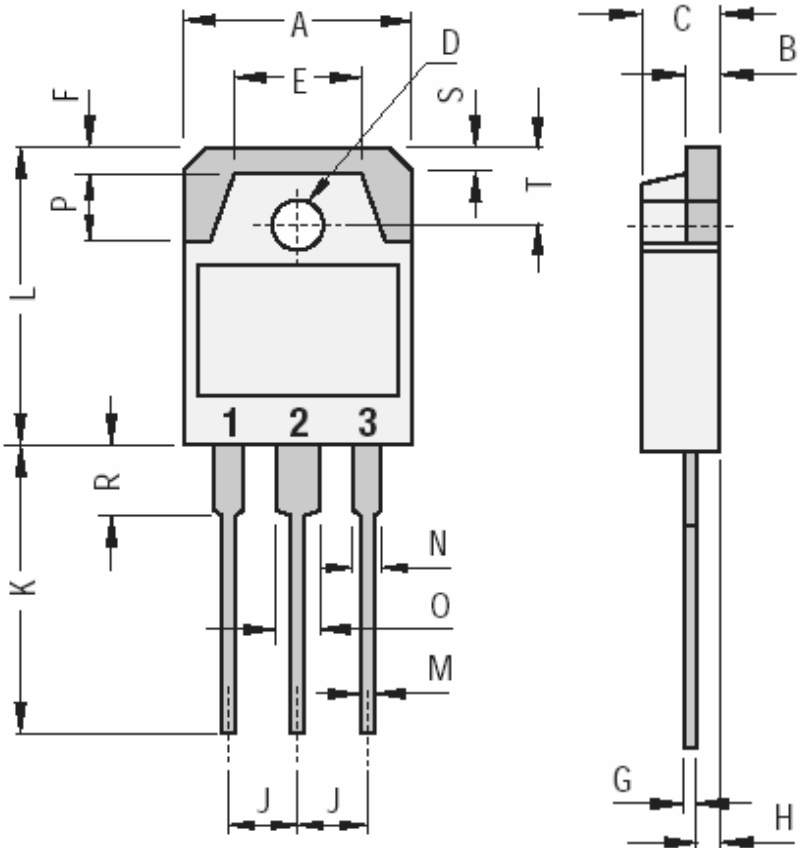
TC=25℃ unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
V_{BE}	Base-Emitter Voltage (*)	V_{CE}= 3 V, I_C= 10 A	BDV67	-	-	2,5	V
			BDV67A				
			BDV67B				
			BDV67C				
			BDV67D				
V_F	Diode forward voltage	I_F= 10 A	BDV67	-	-	3	V
			BDV67A				
			BDV67B				
			BDV67C				
			BDV67D				
C_c	Collector capacitance	I_E= 0 A, V_{CB}= 10 V f= 1 MHz	BDV67	-	300	-	pF
			BDV67A				
			BDV67B				
			BDV67C				
			BDV67D				

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

BDV67-A-B-C-D

MECHANICAL DATA CASE TO3PN Non Isolated Plastic Package



DIMENSIONS (mm)		
	Min.	Max.
A	15.20	1600
B	1.90	2.10
C	4.60	5.00
D	3.10	3.30
E		9.60
F		2.00
G	0.35	0.55
H		1.40
J	5.35	5.55
K	20.00	
L	19.60	20.20
M	0.95	1.25
N		2.00
O		3.00
P		4.00
R		4.00
S		1.80
T	4.80	5.20

Pin 1 :	Base
Pin 2 :	Collector
Pin 3 :	Emitter
Package	Collector

Revised August 2012