



BDV67-A-B-C-D

NPN SILICON DARLINGTONS POWER TRANSISTORS

They are silicon epitaxial base transistors mounted in TO-3PN.
 They are 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	@ $T_{mb} = 25^\circ \text{C}$	BDV67	200	W
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		
T_J	Junction Temperature		BDV67	150	$^\circ\text{C}$
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		
T_s	Storage Temperature		BDV67	-65 to +150	$^\circ\text{C}$
			BDV67A		
			BDV67B		
			BDV67C		
			BDV67D		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-mb}	Thermal Resistance, Junction to Mounting Base	0.625	$^\circ\text{C} / \text{W}$

SWITCHING TIMES

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

BDV67-A-B-C-D

ELECTRICAL CHARACTERISTICS

TC=25°C 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°C	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

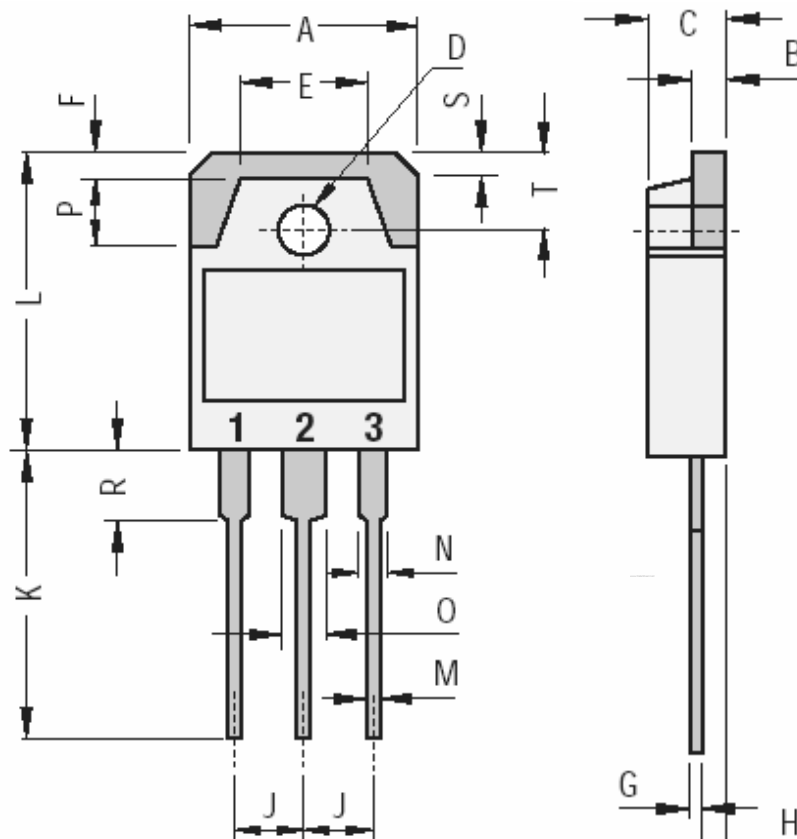
TC=25°C unless otherwise noted

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

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

BDV67-A-B-C-D

MECHANICAL DATA CASE TO3PN Non Isolated Plastic Package



DIMENSIONS (mm)		
	Min.	Max.
A	15.20	16.00
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

Information furnished is believed to be accurate and reliable. However, Comset Semiconductors assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. Data are subject to change without notice. Comset Semiconductors makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Comset Semiconductors assume any liability arising out of the application or use of any product and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Comset Semiconductors' products are not authorized for use as critical components in life support devices or systems.