



BDV67A, B, C, D

NPN SILICON DARLINGTONS POWER TRANSISTORS

The BDV67 is epitaxial base Darlington transistors for audio output stages and general amplifier and switching applications.
The complementary is BDV66A, B, C, D.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
V_{CEO}	Collector-Emitter Voltage		BDV67A	80	V
			BDV67B	100	
			BDV67C	120	
			BDV67D	150	
V_{CBO}	Collector-Base Voltage		BDV67A	100	V
			BDV67B	120	
			BDV67C	140	
			BDV67D	160	
V_{EBO}	Emitter-Base Voltage		BDV67A	5.0	V
			BDV67B		
			BDV67C		
			BDV67D		
I_C	Collector Current	I_C	BDV67A	16	A
			BDV67B		
			BDV67C		
			BDV67D		
		I_{CM}	BDV67A	20	
			BDV67B		
			BDV67C		
			BDV67D		
I_B	Base Current		BDV67A	0.5	A
			BDV67B		
			BDV67C		
			BDV67D		
P_T	Power Dissipation	@ $T_{mb} = 25^\circ\text{C}$	BDV67A	200	Watts
			BDV67B		
			BDV67C		
			BDV67D		
T_J	Junction Temperature		BDV67A	150	$^\circ\text{C}$
			BDV67B		
			BDV67C		
			BDV67D		
T_S	Storage Temperature		BDV67A	-65 to +150	
			BDV67B		
			BDV67C		
			BDV67D		

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THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thJ-mb}	Thermal Resistance, Junction to Mounting Base	BDV67A	0.625	°C/W
		BDV67B		
		BDV67C		
		BDV67D		

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Mx	Unit
I _{CEO}	Collector Cutoff Current	V _{CE} =40 V	BDV67A	-	-	3	mA
		V _{CE} =50 V	BDV67B	-	-		
		V _{CE} =60 V	BDV67C	-	-		
		V _{CE} =75 V	BDV67D	-	-		
I _{EBO}	Emitter Cutoff Current	V _{BE} =5 V	BDV67A	-	-	5.0	mA
			BDV67B				
			BDV67C				
			BDV67D				
I _{CBO}	Collector-Base Cutoff Current	T _J =25°C, V _{CB} = V _{CBO}	BDV67A	-	-	1	mA
			BDV67B				
			BDV67C				
			BDV67D				
		T _J =150°C, V _{CB} = V _{CBO}	BDV67A	-	-	5	
			BDV67B				
			BDV67C				
			BDV67D				

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Symbol	Ratings	Test Condition(s)		Min	Typ	M _x	Unit	
h _{FE}	DC Current Gain	V _{CE} =3 V, I _C =1 A		-	3000	-	-	
		V _{CE} =3 V, I _C =10 A		1000	-	-		
		V _{CE} =3 V, I _C =16 A		-	1000	-		
V _{CE(SAT)}	Collector-Emitter saturation Voltage (*)	I _C =10 A, I _B =40 mA	BDV67A BDV67B BDV67C BDV67D	-	-	2	V	
V _{BE}	Base-Emitter Voltage(1&2)	V _{CE} =3 V, I _C =10 A	BDV67A BDV67B BDV67C BDV67D	-	-	2,5	V	
V _F	Diode forward voltage	I _F =10 A	BDV67A BDV67B BDV67C BDV67D	-	-	3	V	
C _c		I _E =0 A, V _{CB} =10V	BDV67A BDV67B BDV67C BDV67D	-	300	-	pF	
t _{on}	Switching times	V _{CC} =12V, I _C =-10 A I _{B1} =-I _{B2} =0.04 A	BDV67A BDV67B BDV67C BDV67D	-	1	-	μS	
t _{off}			BDV67A BDV67B BDV67C BDV67D	-	3.5	-		
f _{hfe}		V _{CE} =-3 V, I _C =-5 A	BDV67A BDV67B BDV67C BDV67D	-	60	-	kHz	

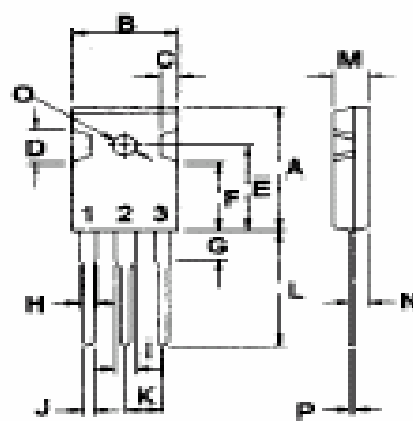
(*) Pulse Width ≈ 300 μs, Duty Cycle < 2.0%

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

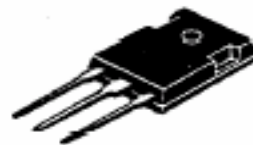
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MECHANICAL DATA CASE TO-3P (TO247)

DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70



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



TO-247(3P)



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*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*