



## BDV66-A-B-C

### PNP 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 BDV67-A-B-C  
Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
$V_{CEO}$	Collector-Emitter Voltage	BDV66	-80	V
		BDV66A	-100	
		BDV66B	-120	
		BDV66C	-140	
$V_{CBO}$	Collector-Base Voltage	BDV66	-80	V
		BDV66A	-100	
		BDV66B	-120	
		BDV66C	-140	
$V_{EBO}$	Emitter-Base Voltage	BDV66	-5.0	V
		BDV66A		
		BDV66B		
		BDV66C		
$I_C$	Collector Current	BDV66	-16	A
		BDV66A		
		BDV66B		
		BDV66C		
$I_{CM}$	Collector Peak Current	BDV66	-20	A
		BDV66A		
		BDV66B		
		BDV66C		
$I_B$	Base Current	BDV66	-0.5	A
		BDV66A		
		BDV66B		
		BDV66C		

## BDV66-A-B-C

### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit	
$P_T$	Power Dissipation	$T_{mb} = 25^\circ \text{C}$	BDV66	175	Watts	
			BDV66A			
			BDV66B			
			BDV66C			
$T_J$	Junction Temperature		BDV66	150	$^\circ\text{C}$	
			BDV66A			
			BDV66B			
			BDV66C			
$T_s$	Storage Temperature		BDV66	-65 to +150		
			BDV66A			
			BDV66B			
			BDV66C			

### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thj-c}$	Thermal Resistance, Junction to Case	0.625	$^\circ\text{C} / \text{W}$

### SWITCHING TIMES

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

(\*) Pulse Width  $\approx 300 \mu\text{s}$ , Duty Cycle  $\angle 1.5 \%$

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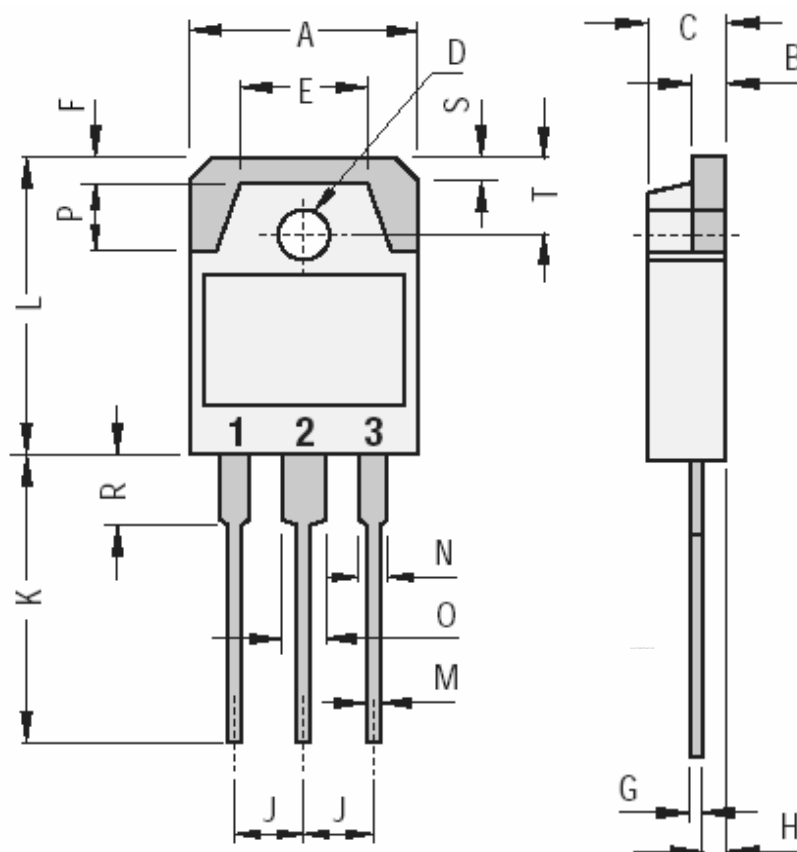
### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)			Min	Typ	Max	Unit
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -40 V, I <sub>B</sub> = 0		BDV66	-	-	-1	mA
		V <sub>CE</sub> = -50 V, I <sub>B</sub> = 0		BDV66A				
		V <sub>CE</sub> = -60 V, I <sub>B</sub> = 0		BDV66B				
		V <sub>CE</sub> = -70 V, I <sub>B</sub> = 0		BDV66C				
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>BE</sub> = -5 V, I <sub>C</sub> = 0		BDV66	-	-	-5	mA
				BDV66A				
				BDV66B				
				BDV66C				
I <sub>CBO</sub>	Collector Cutoff Current	I <sub>E</sub> = 0 T <sub>j</sub> =25°C	V <sub>CB</sub> = -80 V	BDV66	-	-	-1	mA
			V <sub>CB</sub> = -100 V	BDV66A				
			V <sub>CB</sub> = -120 V	BDV66B				
			V <sub>CB</sub> = -140 V	BDV66C				
		I <sub>E</sub> = 0 T <sub>j</sub> =150°C	V <sub>CB</sub> = -40 V	BDV66	-	-	-5	
			V <sub>CB</sub> = -50 V	BDV66A				
			V <sub>CB</sub> = -60 V	BDV66B				
			V <sub>CB</sub> = -70 V	BDV66C				
V <sub>CEO</sub>	Collector-Emitter Breakdown Voltage (*)	I <sub>C</sub> = -100 mA, I <sub>B</sub> = 0		BDV66	-60	-	-	V
				BDV66A	-80	-	-	
				BDV66B	-100	-	-	
				BDV66C	-120	-	-	
h <sub>FE</sub>	DC Current Gain (*)	V <sub>CE</sub> = -3 V, I <sub>C</sub> = -10 A		BDV66	1000	-	-	-
				BDV66A				
				BDV66B				
				BDV66C				
V <sub>CE(SAT)</sub>	Collector-Emitter saturation Voltage (*)	I <sub>C</sub> = -10 A, I <sub>B</sub> = -40 mA		BDV66	-	-	-2	V
				BDV66A				
				BDV66B				
				BDV66C				
V <sub>BE</sub>	Base-Emitter Voltage(*)	V <sub>CE</sub> = -3 V, I <sub>C</sub> = -10 A		BDV66	-	-	-2,5	V
				BDV66A				
				BDV66B				
				BDV66C				
C <sub>OB</sub>	Output Capacitance	V <sub>CB</sub> = -10 V, I <sub>E</sub> = 0 f <sub>test</sub> = 1 MHz		BDV66	-	300	-	pF
				BDV66A				
				BDV66B				
				BDV66C				

## BDV66-A-B-C

### 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

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