



## 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	$T_{mb} = 25^\circ C$	BDV66	175	Watts
			BDV66A		
			BDV66B		
			BDV66C		
$T_J$	Junction Temperature		BDV66	150	$^\circ C$
			BDV66A		
			BDV66B		
			BDV66C		
$T_S$	Storage Temperature		BDV66	-65 to +150	$^\circ C$
			BDV66A		
			BDV66B		
			BDV66C		

### THERMAL CHARACTERISTICS

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

### SWITCHING TIMES

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

(\*) Pulse Width  $\approx 300 \mu s$ , Duty Cycle  $\leq 1.5 \%$

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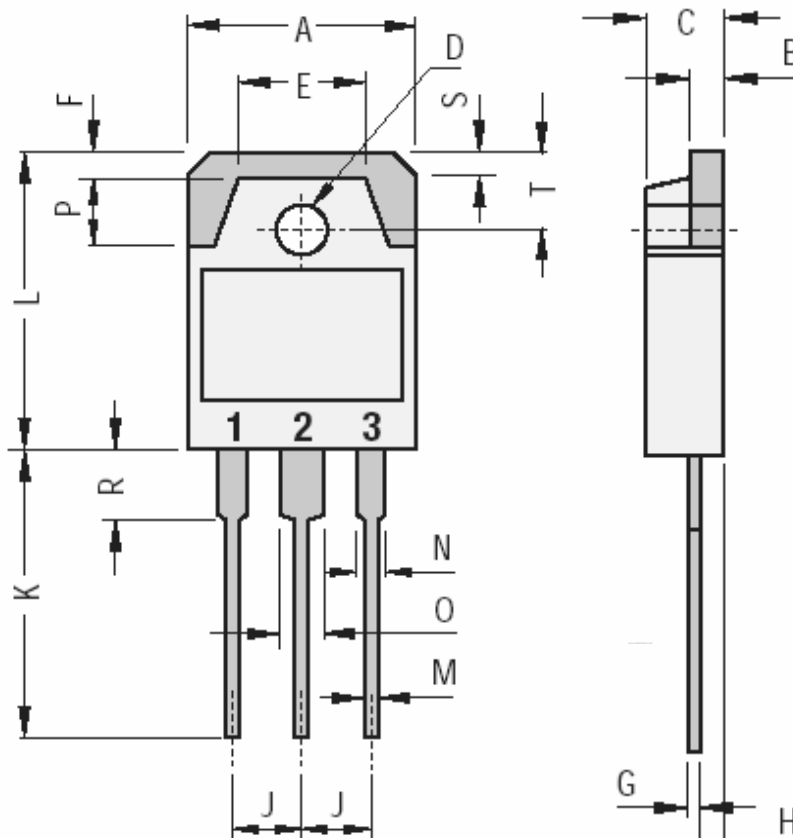
### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit	
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -40\text{ V}, I_B = 0$	BDV66	-	-	-1	mA	
		$V_{CE} = -50\text{ V}, I_B = 0$	BDV66A					
		$V_{CE} = -60\text{ V}, I_B = 0$	BDV66B					
		$V_{CE} = -70\text{ V}, I_B = 0$	BDV66C					
$I_{EBO}$	Emitter Cutoff Current	$V_{BE} = -5\text{ V}, I_C = 0$	BDV66	-	-	-5	mA	
			BDV66A					
			BDV66B					
			BDV66C					
$I_{CBO}$	Collector Cutoff Current	$I_E = 0$ $T_j = 25^\circ\text{C}$	$V_{CB} = -80\text{ V}$	BDV66	-	-	-1	mA
			$V_{CB} = -100\text{ V}$	BDV66A				
			$V_{CB} = -120\text{ V}$	BDV66B				
			$V_{CB} = -140\text{ V}$	BDV66C				
		$I_E = 0$ $T_j = 150^\circ\text{C}$	$V_{CB} = -40\text{ V}$	BDV66	-	-	-5	
			$V_{CB} = -50\text{ V}$	BDV66A				
			$V_{CB} = -60\text{ V}$	BDV66B				
			$V_{CB} = -70\text{ V}$	BDV66C				
$V_{CEO}$	Collector-Emitter Breakdown Voltage (*)	$I_C = -100\text{ mA}, I_B = 0$	BDV66	-60	-	-	V	
			BDV66A	-80	-	-		
			BDV66B	-100	-	-		
			BDV66C	-120	-	-		
$h_{FE}$	DC Current Gain (*)	$V_{CE} = -3\text{ V}, I_C = -10\text{ A}$	BDV66	1000	-	-	-	
			BDV66A					
			BDV66B					
			BDV66C					
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = -10\text{ A}, I_B = -40\text{ mA}$	BDV66	-	-	-2	V	
			BDV66A					
			BDV66B					
			BDV66C					
$V_{BE}$	Base-Emitter Voltage(*)	$V_{CE} = -3\text{ V}, I_C = -10\text{ A}$	BDV66	-	-	-2,5	V	
			BDV66A					
			BDV66B					
			BDV66C					
$C_{OB}$	Output Capacitance	$V_{CB} = -10\text{ V}, I_E = 0$ $f_{test} = 1\text{ MHz}$	BDV66	-	300	-	pF	
			BDV66A					
			BDV66B					
			BDV66C					

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### 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

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