



BDV65-A-B-C

NNP 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 BDV64-A- B-C
 Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit	
V_{CEO}	Collector-Emitter Voltage	BDV65	60	V	
		BDV65A	80		
		BDV65B	100		
		BDV65C	120		
V_{CBO}	Collector-Base Voltage	BDV65	60	V	
		BDV65A	80		
		BDV65B	100		
		BDV65C	120		
V_{EBO}	Emitter-Base Voltage	BDV65	5.0	V	
		BDV65A			
		BDV65B			
		BDV65C			
I_C	Collector Current	BDV65	12	A	
		BDV65A			
		BDV65B			
		BDV65C			
I_{CM}	Collector Peak Current	BDV65	15		
		BDV65A			
		BDV65B			
		BDV65C			
I_B	Base Current	BDV65	0.5	A	
		BDV65A			
		BDV65B			
		BDV65C			



BDV65-A-B-C

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings			Value	Unit
P _T	Power Dissipation	T _{mb} = 25° C	BDV65	125	Watts
			BDV65A		
			BDV65B		
			BDV65C		
		T _{mb} = 25° C	BDV65	3.5	
			BDV65A		
			BDV65B		
			BDV65C		
T _J	Junction Temperature	BDV65	150	°C	
		BDV65A			
		BDV65B			
		BDV65C			
T _s	Storage Temperature	BDV65	-65 to +150		
		BDV65A			
		BDV65B			
		BDV65C			

THERMAL CHARACTERISTICS

Symbol	Ratings		Value	Unit
R_{thj-c}	Thermal Resistance, Junction to Case	BDV65	1	$^{\circ}\text{C} / \text{W}$
		BDV65A		
		BDV65B		
		BDV65C		
R_{thj-a}	Thermal Resistance, Junction to Ambient	BDV65	35.7	
		BDV65A		
		BDV65B		
		BDV65C		

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ELECTRICAL CHARACTERISTICS

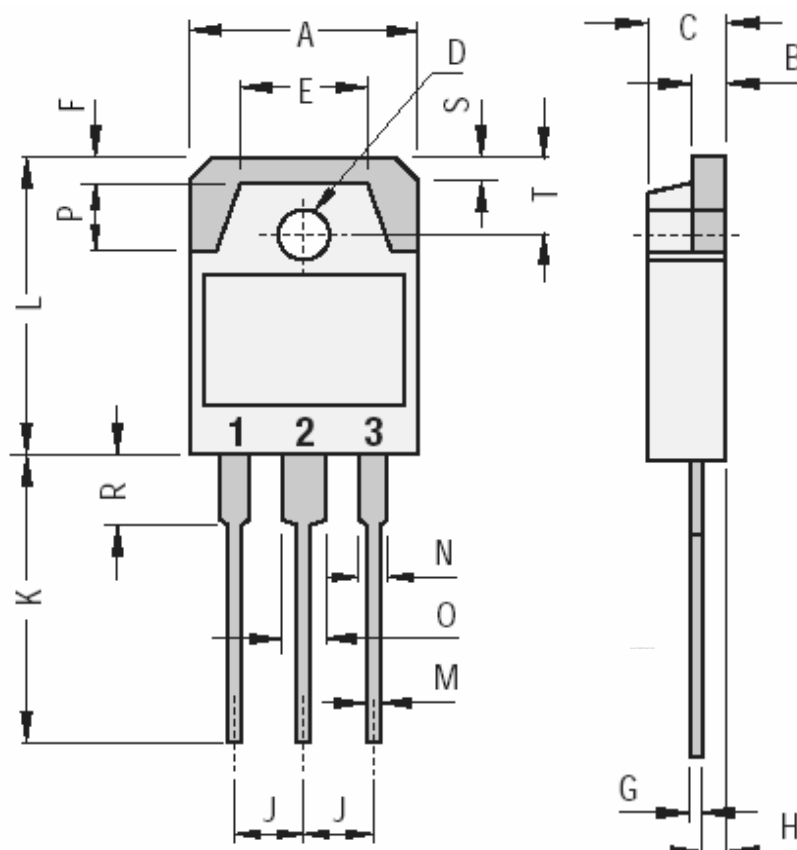
TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Mx	Unit	
I _{CEO}	Collector Cutoff Current	V _{CE} = 30 V, I _B = 0		-	-	2	mA	
		V _{CE} = 40 V, I _B = 0						
		V _{CE} = 50 V, I _B = 0						
		V _{CE} = 60 V, I _B = 0						
I _{EBO}	Emitter Cutoff Current	V _{BE} = 5 V, I _C = 0		-	-	5	mA	
		BDV65						
		BDV65A						
		BDV65B						
I _{CBO}	Collector Cutoff Current	I _E = 0 T _J =25°C	V _{CB} = 60 V	BDV65	-	-	0.4	mA
			V _{CB} = 80 V	BDV65A				
			V _{CB} = 100 V	BDV65B				
			V _{CB} = 120 V	BDV65C				
		I _E = 0 T _J =150°C	V _{CB} = 30 V	BDV65	-	-	2	
			V _{CB} = 40 V	BDV65A				
			V _{CB} = 50 V	BDV65B				
			V _{CB} = 60 V	BDV65C				
V _{CEO}	Collector-Emitter Breakdown Voltage (*)	I _C = 30 mA, I _B = 0		BDV65	60	-	-	V
				BDV65A	80	-	-	
				BDV65B	100	-	-	
				BDV65C	120	-	-	
h _{FE}	DC Current Gain (*)	V _{CE} = 4 V, I _C = 5 A		BDV65	1000	-	-	-
				BDV65A				
				BDV65B				
				BDV65C				
V _{CE(SAT)}	Collector-Emitter saturation Voltage (*)	I _C = 5 A, I _B = 20 mA		BDV65	-	-	2	V
				BDV65A				
				BDV65B				
				BDV65C				
V _{BE}	Base-Emitter Voltage(*)	V _{CE} = 4 V, I _C = 5 A		BDV65	-	-	2,5	V
				BDV65A				
				BDV65B				
				BDV65C				

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

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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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