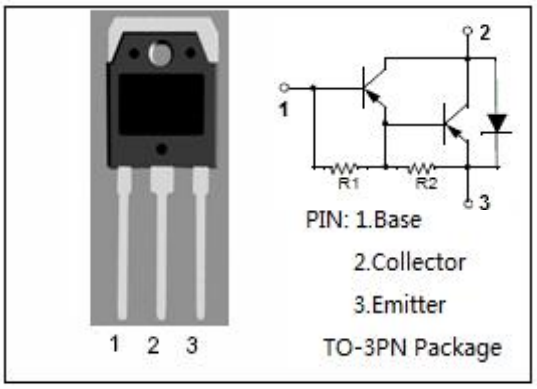
isc Silicon PNP Darlington Power Transistor BDV66/A/B/C

DESCRIPTION

- Collector Current -I_C= -16A
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= -2.0V(Max.)@ I_C= -10A
- Complement to Type BDV67/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

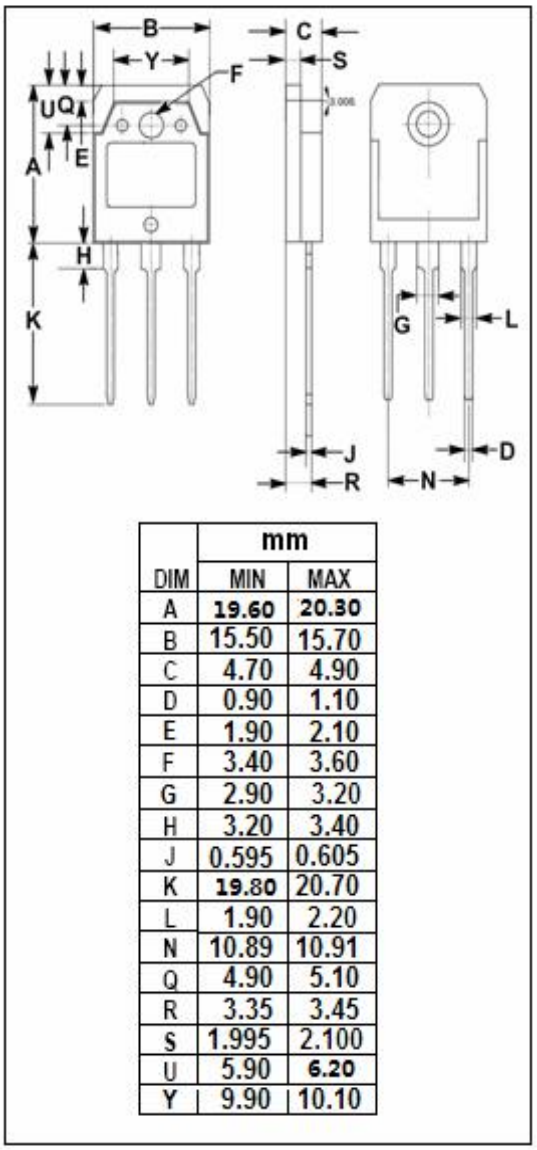


APPLICATIONS

- Designed for audio output stages and general amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BDV66	-80	V
		BDV66A	-100	
		BDV66B	-120	
		BDV66C	-140	
V_{CEO}	Collector-Emitter Voltage	BDV66	-60	V
		BDV66A	-80	
		BDV66B	-100	
		BDV66C	-120	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-16	A
I_{CM}	Collector Current-Peak		-20	A
I_B	Base Current-Continuous		-0.5	A
P_C	Collector Power Dissipation @ T_C=25℃		175	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-65~150	℃



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.625	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BDV66	I_C= -50mA ;I_B=0	-60			V
		BDV66A		-80			
		BDV66B		-100			
		BDV66C		-120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		I_C= -10A; I_B= -40mA			-2	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= -10A ; V_{CE}= -3V			-2.5	V
I_{CEO}	Collector Cutoff Current		V_{CE}= $^1/_2V_{CEOmax}$; I_B= 0			-1	mA
I_{CBO}	Collector Cutoff Current	BDV66	V_{CB}= -40V;I_E= 0;T_J= 150℃			-5	mA
		BDV66A	V_{CB}= -50V;I_E= 0;T_J= 150℃				
		BDV66B	V_{CB}= -60V;I_E= 0;T_J= 150℃				
		BDV66C	V_{CB}= -70V;I_E= 0;T_J= 150℃				
I_{CBO}	Collector Cutoff Current		V_{CB}= V_{CBOmax};I_E= 0			-1	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= -5V; I_C= 0			-5	mA
h_{FE}	DC Current Gain		I_C= -10A ; V_{CE}= -3V	1000			
C_{OB}	Output Capacitance		I_E= 0 ; V_{CB}= -10V; f_{test}= 1MHz		300		pF
Switching times							
t_{on}	Turn-on Time		I_C= -10A; I_{B1}= -I_{B2}= -40mA; V_{CC}= 12V		1		μs
t_{off}	Turn-off Time				3.5		μs

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