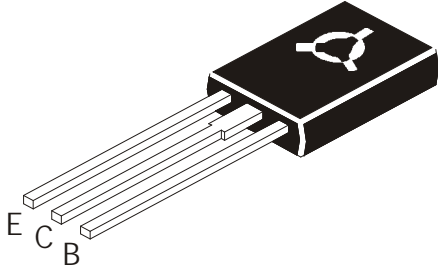


SILICON EPITAXIAL POWER TRANSISTORS



BD131 NPN
BD132 PNP

TO-126
Plastic Package

General Purpose Medium Power Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	BD131	BD132	UNIT
Collector -Base Voltage	V_{CBO}	70	45	V
Collector -Emitter Voltage	V_{CEO}	45	45	V
Emitter-Base Voltage	V_{EBO}	6	4	V
Collector Current Continuous	I_C	3		A
Peak	I_{CM}	6		A
Base Current Peak	I_{BM}	0.5		A
Reverse Base Current Peak	$-I_{BM}$	0.5		A
Total Device Dissipation upto $T_{amb}=60^\circ\text{C}$	P_{tot}	15		W
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150		$^\circ\text{C}$

Thermal Resistance

From Junction to Mounting Base	$R_{th(j-mb)}$	6	K/W
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ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

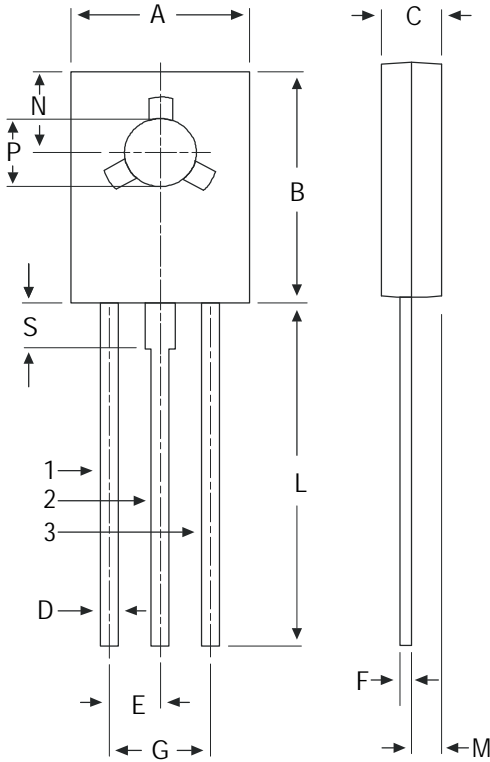
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50\text{V}, I_E=0$ BD131		50	nA
		$V_{CB}=40\text{V}, I_E=0$ BD132		50	nA
		$V_{CB}=50\text{V}, I_E=0, T_j = 150^\circ\text{C}$ BD131		10	μA
		$V_{CB}=40\text{V}, I_E=0, T_j = 150^\circ\text{C}$ BD132		10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$ BD131		50	nA
		$V_{EB}=3\text{V}, I_C=0$ BD132		50	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 0.5\text{A}, I_B = 50\text{mA}$		0.3	V
		$I_C = 2\text{A}, I_B = 200\text{mA}$		0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 0.5\text{A}, I_B = 50\text{mA}$		1.2	V
		$I_C = 2\text{A}, I_B = 200\text{mA}$		1.5	V
DC Current Gain	h_{FE}	$V_{CE} = 12\text{V}, I_C = 0.5\text{A}$	40		
		$V_{CE} = 1\text{V}, I_C = 2\text{A}$	20		

Dynamic Characteristics

Collector Capacitance	C_C	$I_E = 0, V_{CB} = 5\text{V}, f = 1\text{MHz}$ BD131		60	pF
Transition Frequency	f_T	$I_C = 0.25\text{A}, V_{CE} = 5\text{V}, f = 35\text{MHz},$ $T_{amb} = 25^\circ\text{C}$	60		MHz
DC Current Gain Ratio of the Complementary Pairs	h_{FE1}/h_{FE2}	$V_{CE} = 12\text{V}, I_C = 0.5\text{A}$		1.2	

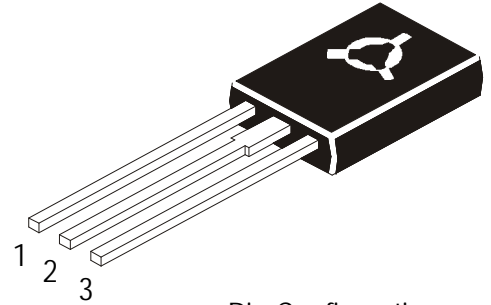
TO-126
Plastic Package

TO-126 (SOT-32) Plastic Package



DIM	MIN	MAX
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

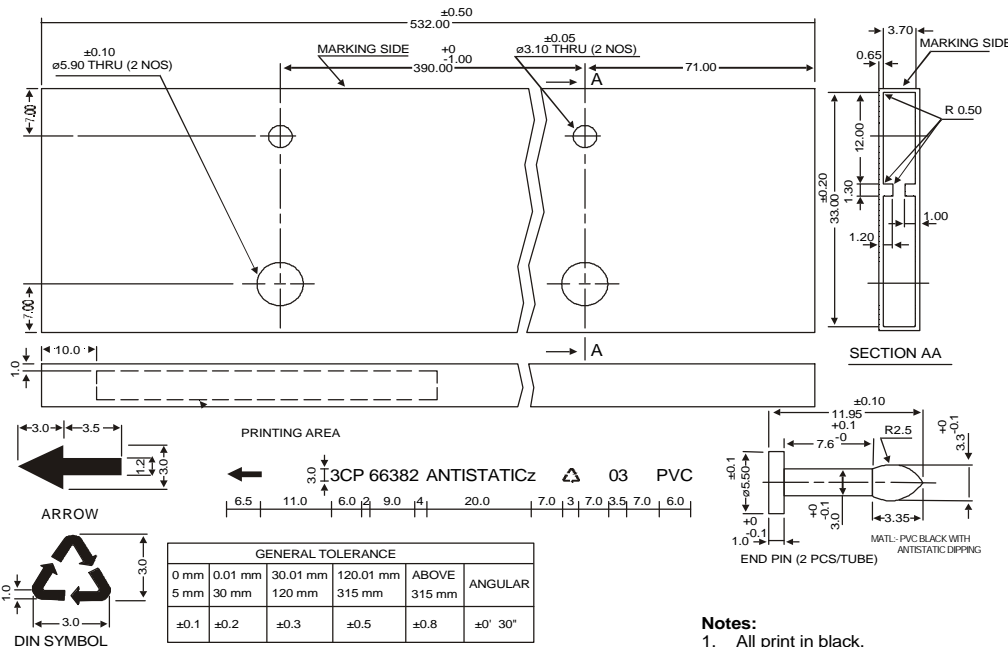
All dimensions in mm.



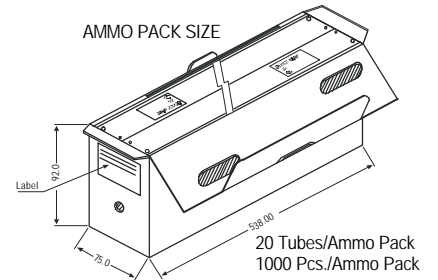
Pin Configuration

1. Emitter
2. Collector
3. Base

TO-126 TUBE PACKING



- Notes:
1. All print in black.
 2. All text in Helvetia medium font.



Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-126 Bulk	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2K	17" x 15" x 13.5"	32K	31 kgs
TO-126 Tube	50 pcs/tube	73 gm/50 pcs	3" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	15 kgs

BD131_132Rev_1 120403D

Disclaimer

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