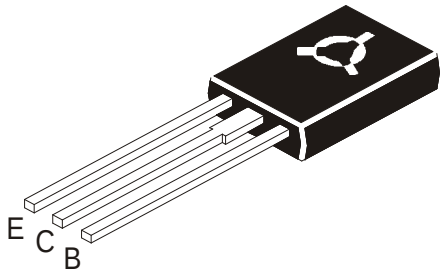
Continental Device India Limited

An IS/ISO 9002 and IECQ Certified Manufacturer

IS/ISO 9002
Lic# QSC/L- 000019.3

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}=60ºC	P_{tot}	15		W
Junction Temperature	T_j	150		^oC
Storage Temperature Range	T_{stg}	-65 to +150		ºC

Thermal Resistance

From Junction to Mounting Base	$R_{th(j-mb)}$	6	K/W

ELECTRICAL CHARACTERISTICS (T_a=25ºC unless specified otherwise)

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

Dynamic Characteristics

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

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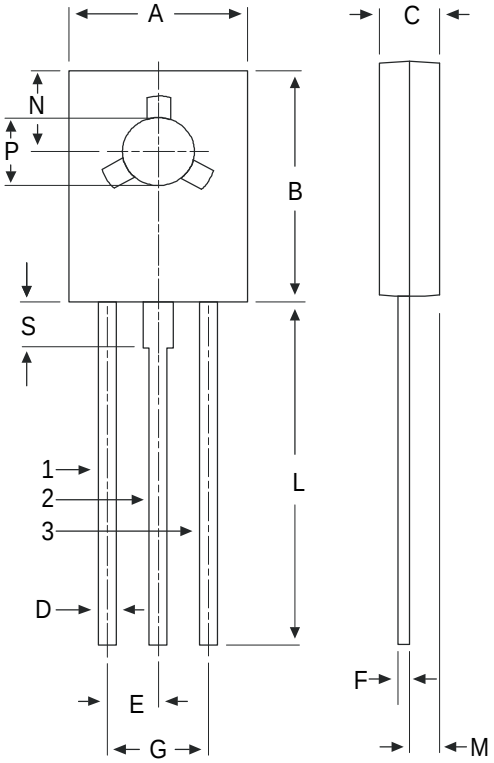
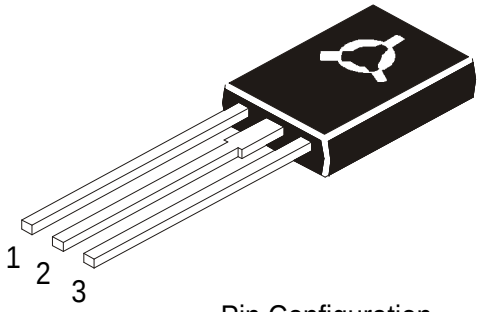
TO-126 (SOT-32) Plastic Package



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.	

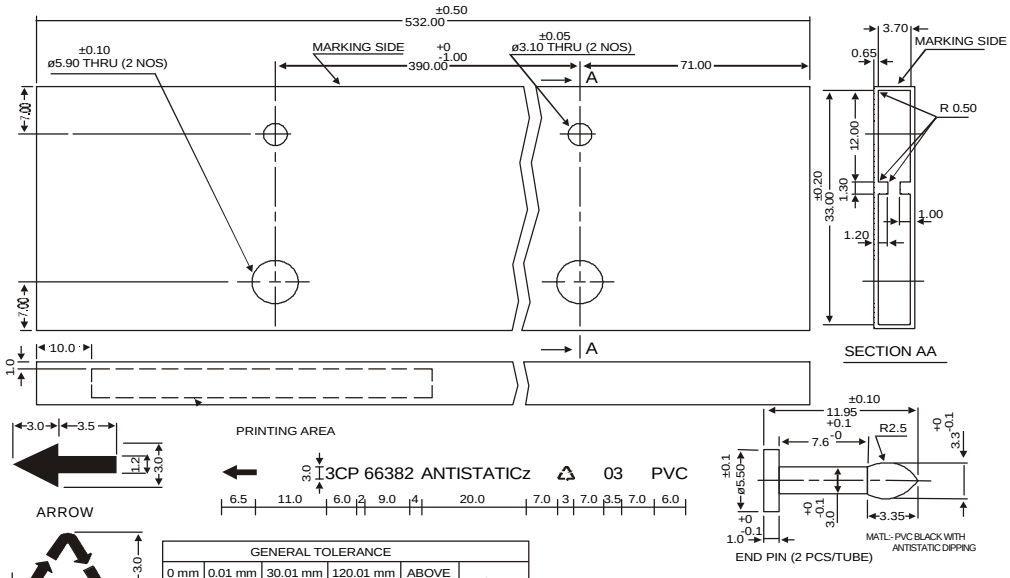
All dimensions in mm.

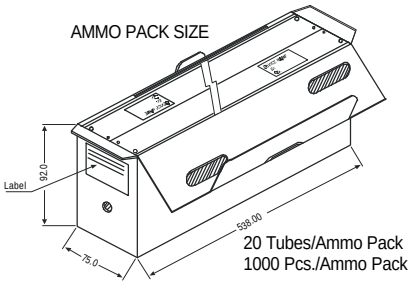


Pin Configuration

1. Emitter
2. Collector
3. Base

TO-126 TUBE PACKING





20 Tubes/Ammo Pack
1000 Pcs./Ammo Pack

GENERAL TOLERANCE					
0 mm 5 mm	0.01 mm 30 mm	30.01 mm 120 mm	120.01 mm 315 mm	ABOVE 315 mm	ANGULAR
±0.1	±0.2	±0.3	±0.5	±0.8	±0° 30"

All dimensions in mm

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

TO-126
Plastic Package

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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