NPN BD131

SILICON PLANAR EPITAXIAL POWER TRANSISTORS

The BD131are NPN transistors mounted in Jedec TO-126 plastic package.
Medium power applications.
PNP complements are BD132
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage		45	V
V_{CBO}	Collector-Base Voltage		45	V
V_{EBO}	Emitter-Base Voltage		4	V
I_C	Collector Current	I_C	3	A
		I_{CM}	6	
I_B	Base current (peak value)	I_{BM}	0.5	A
	Reverse base current (peak value)	I_{BM}	0.5	
P_T	Total power Dissipation	@ T_{mb} = 60°C	15	W
T_J	*Junction Temperature*		150	°C
T_{Stg}	Storage Temperature		-65 to +150	°C

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ\text{-}mb}$	Thermal Resistance, Junction to mouting base	6	K/W

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
I_{CBO}	Collector cut-off current	I_E=0 , V_{CB}=40 V	-	-	5	µA
		I_E=0 , V_{CB}=40 V ,T_j= 150°C	-	-	500	
I_{EBO}	Emitter cut-offcurrent	I_C=0, V_{EB}=3 V	-	-	5	µA
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage	I_C=0.5 A, I_B=50 mA	-	-	0.3	V
		I_C=2.0 A, I_B=200 mA	-	-	1.2	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage	I_C=0.5 A, I_B=50 mA	-	-	0.7	V
		I_C=2.0 A, I_B=200 mA	-	-	1,5	
h_{FE}	DC Current Gain	V_{CE}=12 V, I_C=500m A	40	-	-	
		V_{CE}=1 V, I_C=2 A	20	-	-	

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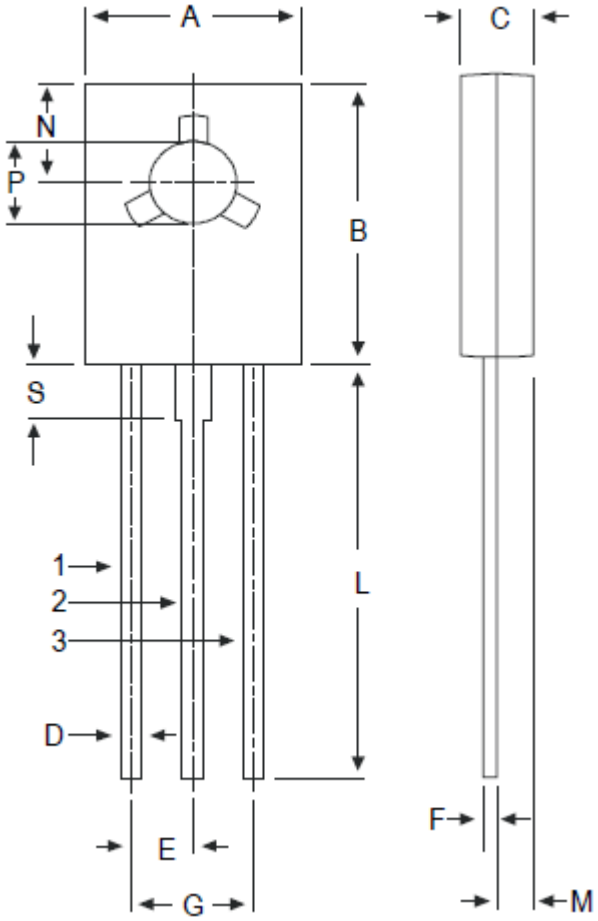
MECHANICAL DATA CASE TO-126

	DIMENSIONS	
	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	4.4 typ.	
L	15.7 typ.	
M	1.27 typ.	
N	3.75 typ.	
P	3.0	3.2
S	2.54 typ.	



Pin 1 :	Emitter
Pin 2 :	Collector
Pin 3 :	Base

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