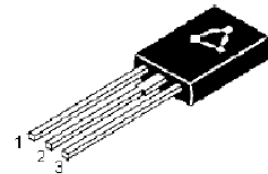


# Medium Power Transistor TO-126

multicomp **PRO**



#### Pin Configuration:

1. Emitter
2. Collector
3. Base

#### Feature:

- Epitaxial Silicon Power Transistors
- Intended for use in Medium Power Linear Switching Applications

#### Absolute Maximum Ratings

Description	Symbol	BD237	Unit
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	80	
Collector Emitter Voltage ( $R_{BE} = 1K$ )	$V_{CER}$	100	
Emitter Base Voltage	$V_{EBO}$	5	
Collector Current	$I_C$	2	A
Collector Peak Current	$I_{CM}$	6	
Power Dissipation at $T_C = 25^\circ C$ Derate above $25^\circ C$	$P_D$	25	W
Power Dissipation at $T_a = 25^\circ C$		1.25 10	W mW/ $^\circ C$
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +150	$^\circ C$

#### Thermal Characteristics

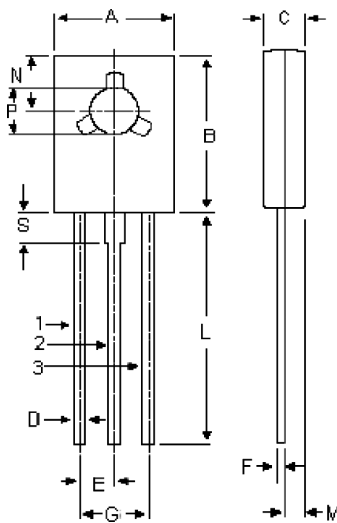
Junction to Case	$R_{th(j-c)}$	100	$^\circ C/W$
Junction to Ambient in Free Air	$R_{th(j-a)}$	4.16	

# Medium Power Transistor TO-126

## Electrical Characteristics ( $T_C = 25^\circ\text{C}$ unless specified otherwise)

Description	Symbol	Test Condition	Min.	Typical	Max.	Unit
Collector Cut off Current	$I_{CBO}$	$V_{CB} = 100V, I_E = 0$ $T_C = 150^\circ\text{C}$ $V_{CB} = 100V, I_E = 0$	-	-	100 2	$\mu\text{A}$ mA
Emitter Cut off Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	-	-	1	mA
Collector Emitter Sustaining Voltage	$*V_{CEO(sus)}$	$I_C = 0.1A, I_B = 0$	80	-	-	V
Collector Emitter Saturation Voltage	$*V_{CEO(sat)}$	$I_C = 1A, I_B = 0.1A$	-	-	0.6	
Base Emitter Voltage	$*V_{BE(on)}$	$I_C = 1A, V_{CE} = 2V$	-	-	1.3	
DC Current Gain	$*h_{FE}$	$I_C = 150mA, V_{CE} = 2V$ $I_C = 1A, V_{CE} = 2V$	40 25	-	-	-
Current Gain Bandwidth Product	$f_T$	$I_C = 250mA, V_{CE} = 10V$	3	-	-	MHz
$*h_{FE1}/h_{FE2}$	Matched Pairs	$I_C = 250mA, V_{CE} = 2V$	-	1.6	-	-

\*Pulse Test : Pulse Width = 300 $\mu\text{s}$ , Duty Cycle = 1.5%.



### Pin Configuration:

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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 (Typical)	
F	0.49	0.75
G	4.5 (Typical)	
L	15.7 (Typical)	
M	1.27 (Typical)	
N	3.75 (Typical)	
P	3	3.2
S	2.5 (Typical)	

Dimensions : Millimetres

### Part Number Table

Description	Part Number
Transistor, NPN, TO-126	BD237

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