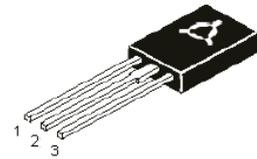


# Medium Power Transistor TO-126

multicomp<sup>PRO</sup>



#### Pin Configuration:

1. Emitter
2. Collector
3. Base

#### Feature:

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

#### Absolute Maximum Ratings

Description	Symbol	BD437	Unit
Collector-Base Voltage	$V_{CBO}$	45	V
Collector-Emitter Voltage	$V_{CES}$		
Collector-Emitter Voltage	$V_{CEO}$		
Emitter-Base Voltage	$V_{EBO}$	5	
Collector Current	$I_C$	4	A
Collector Peak Current (t = 10ms)	$I_{CM}$	7	
Base Current	$I_B$	1	
Device Dissipation at $T_C = 25^\circ\text{C}$	$P_{tot}$	36	W
Operating and Storage Junction Temperature Range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

#### Thermal Resistance

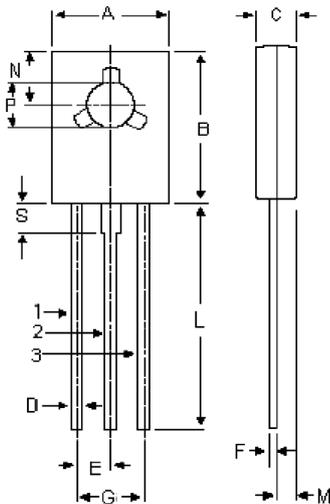
Junction to Case	$R_{th(j-c)}$	3.5	$^\circ\text{C/W}$
Junction to Ambient	$R_{th(j-a)}$	100	

# Medium Power Transistor TO-126

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

Description	Symbol	Test Condition	BD437	Unit
Collector-Cut off Current	$I_{CBO}$ $I_{CES}$	$I_E = 0, V_{CB} = \text{Rated } V_{CBO}$ $V_{BE} = 0, V_{CE} = \text{Rated } V_{CES}$	<100	$\mu\text{A}$
Emitter-Cut off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	<1	mA
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_C = 100\text{mA}, I_B = 0$	>45	V
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C = 2\text{A}, I_B = 0.2\text{A}$	<0.6	
Base Emitter On Voltage	$V_{BE(on)}^*$	$I_C = 10\text{mA}, V_{CE} = 5\text{V}$ $I_C = 2\text{A}, V_{CE} = 1\text{V}$	0.58 (Typical) <1.2	
DC Current Gain	$h_{FE}^*$	$I_C = 10\text{mA}, V_{CE} = 5\text{V}$ $I_C = 500\text{mA}, V_{CE} = 1\text{V}$ $I_C = 2\text{A}, V_{CE} = 1\text{V}$	>30 >85 >40	-
	$h_{FE1}^* / h_{FE2}^*$ Matched Pair	$I_C = 500\text{mA}, V_{CE} = 1\text{V}$	<1.4	
Transition Frequency	$f_t$	$V_{CE} = 1\text{V}, I_C = 250\text{mA}$	>3	MHz

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



### Pin Configuration:

1. Emitter
2. Collector
3. Base

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)	

### Part Number Table

Dimensions : Millimetres

Description	Part Number
Transistor, NPN, TO-126	BD437

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