



Micro Commercial Components

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BD434/BD436/BD438

Features

- Intended for use in medium power near and switching applications
- With TO-126 package
- The complementary NPN type is BD433, BD435, BD437

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	BD434	-22
		BD436	-32
		BD438	-45
V_{CBO}	Collector-Base Voltage	BD434	-22
		BD436	-32
		BD438	-45
V_{EBO}	Emitter-Base Voltage	BD434	-5.0
		BD436	-5.0
		BD438	-5.0
I_C	Collector Current	-4.0	A
P_C	Collector power dissipation	1.25	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

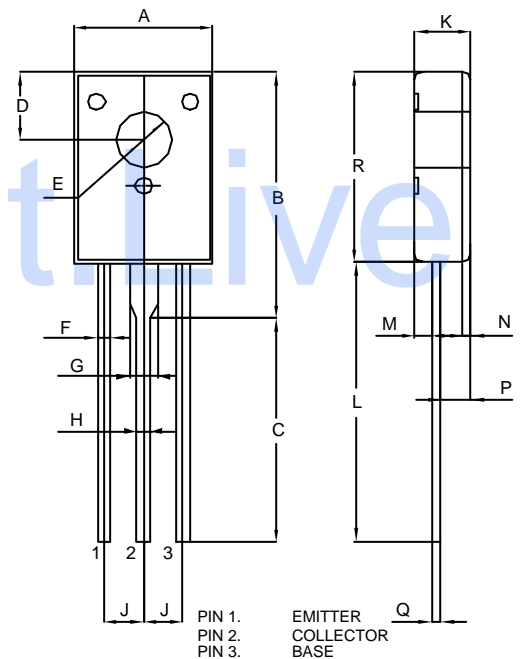
Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=-10\text{mA}$, $I_E=0$)	BD434	-22	---	Vdc
		BD436	-32	---	
		BD438	-45	---	
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-1\text{mA}$, $I_E=0$)	BD434	-22	---	Vdc
		BD436	-32	---	
		BD438	-45	---	
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=-1\text{mA}$, $I_C=0$)	-5	---	Vdc	
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=-22\text{Vdc}$, $I_E=0$) ($V_{CB}=-32\text{Vdc}$, $I_E=0$) ($V_{CB}=-45\text{Vdc}$, $I_E=0$)	BD434	---	-100	uAdc
		BD436	---	-100	
		BD438	---	-100	
I_{CEO}	Collector-Emitter Cutoff Current ($V_{CE}=-22\text{Vdc}$, $I_E=0$) ($V_{CE}=-32\text{Vdc}$, $I_E=0$) ($V_{CE}=-45\text{Vdc}$, $I_E=0$)	BD434	---	-100	uAdc
		BD436	---	-100	
		BD438	---	-100	
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=-5.0\text{Vdc}$, $I_C=0$)	---	-1.0	mAdc	

PNP Silicon Power Transistors

TO-126



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.30	0.33	7.70	8.30	
B		0.56		14.20	
C	0.50	0.53	12.76	13.36	
D	0.15	0.16	3.80	4.0	
E	0.12	0.13	3.10	3.30	
F	0.025	0.033	0.65	0.85	
G	0.06	0.07	1.50	1.70	
H	0.025	0.033	0.65	0.85	
J	0.08	0.10	2.08	2.48	
K	0.12	0.14	3.05	3.45	
L	0.63	0.64	15.90	16.30	
M		0.04		1.0	
N		0.02		0.5	
P	0.06	0.08	1.55	1.95	
Q	0.018	0.023	0.45	0.60	
R	0.43	0.44	10.80	11.20	

BD434, BD436, BD438



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ON CHARACTERISTICS

h_{FE-1}	DC Current Gain ($I_C=-500\text{mA}$, $V_{CE}=-1.0\text{Vdc}$)		85	---	---
h_{FE-2}	DC Current Gain ($I_C=-10\text{mA}$, $V_{CE}=-5.0\text{Vdc}$)	BD434/BD436 BD438	40 30	---	---
h_{FE-3}	DC Current Gain ($I_C=-2\text{A}$, $V_{CE}=-1.0\text{Vdc}$)	BD434/BD436 BD438	50 40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-2.0\text{A}$, $I_B=-0.2\text{A}$)	BD434/BD436 BD438	-0.5 -0.6	---	Vdc
V_{BE}	Base-Emitter Voltage ($V_{CE}=-1.0\text{Vdc}$, $I_C=-2.0\text{A}$)	BD434/BD436 BD438	-1.1 -1.2	---	Vdc
f_T	Transition Frequency ($I_C=-250\text{mA}$, $V_{CE}=-1.0\text{Vdc}$)		3.0	---	MHz