



Micro Commercial Components

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BD441

NPN Silicon Power Transistors

Features

- Medium power linear and switching applications
- With TO-126 package
- The complementary PNP types is BD442 respectively
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	80	V
V_{CBO}	Collector-Base Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_{CP}	Peak Collector Current	7.0	A
I_C	Collector Current	4.0	A
P_C	Collector power dissipation	36	W
T_J	Junction Temperature	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}C$

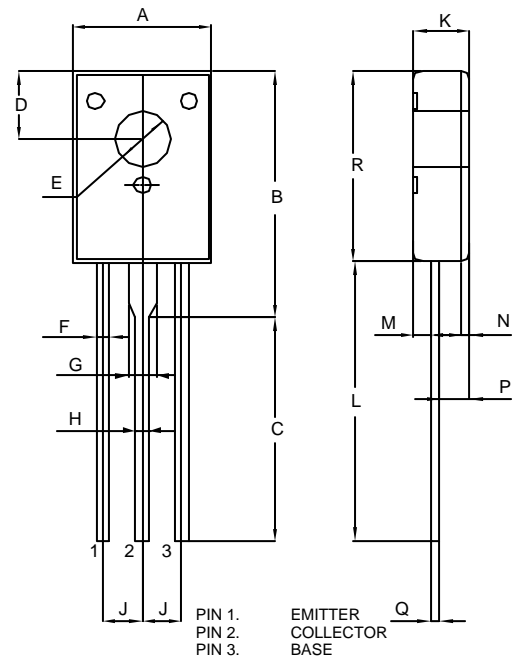
Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=100mA$, $I_B=0$)	80	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=80Vdc$, $I_E=0$)	---	100	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=5.0Vdc$, $I_C=0$)	---	1.0	mA

ON CHARACTERISTICS

h_{FE-1}	Forward Current Transfer ratio ($I_C=10mA$, $V_{CE}=5.0Vdc$)	15	---	---
h_{FE-2}	Forward Current Transfer ratio ($I_C=500mA$, $V_{CE}=1.0Vdc$)	40	---	---
h_{FE-3}	Forward Current Transfer ratio ($I_C=2.0mA$, $V_{CE}=1.0Vdc$)	15	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=2.0A$, $I_B=0.2A$)	---	0.8	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=2.0A$, $V_{CE}=1.0Vdc$)	---	1.5	Vdc
f_T	Transition Frequency ($I_C=250mA$, $V_{CE}=1.0Vdc$, $f=1.0MHz$)	3.0	---	MHz

TO-126



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	



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