



Micro Commercial Components
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BD651

Features

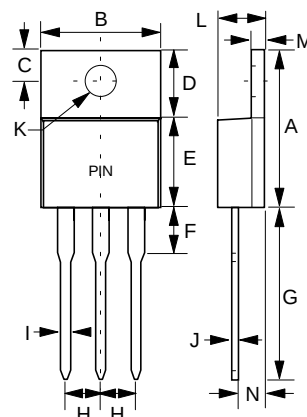
- With TO-220 package
- Intended for use in power linear and switching applications

NPN Silicon Power Transistors

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	140	V
V_{CBO}	Collector-Base Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_{CP}	Peak Collector Current	12	A
I_C	Collector Current	8.0	A
P_C	Collector power dissipation	62	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

TO-220



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 ($I_C=50mA$, $I_E=0$)	140	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=140V$, $I_E=0$)	---	0.2	mA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=5.0V$, $I_C=0$)	---	5.0	mA

ON CHARACTERISTICS

h_{FE-1}	Forward Current Transfer ratio ($I_C=2.0A$, $V_{CE}=5.0V$)	500	---	---
h_{FE-2}	Forward Current Transfer ratio ($I_C=3.0A$, $V_{CE}=5.0V$)	150	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=2.0A$, $I_E=10mA$)	---	2.0	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=2.0A$, $I_E=10mA$)	---	2.5	Vdc

DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	Ø
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	