



Micro Commercial Components

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MJE13007F

NPN

Power Transistor
8.0 A 400 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- Power dissipation: 2W($T_a=25^\circ\text{C}$)
- Collector current: 8A
- Operating and storage junction temperature range
 T_J, T_{stg} : -55°C $+150^\circ\text{C}$
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings @ 25°C Unless Otherwise Noted

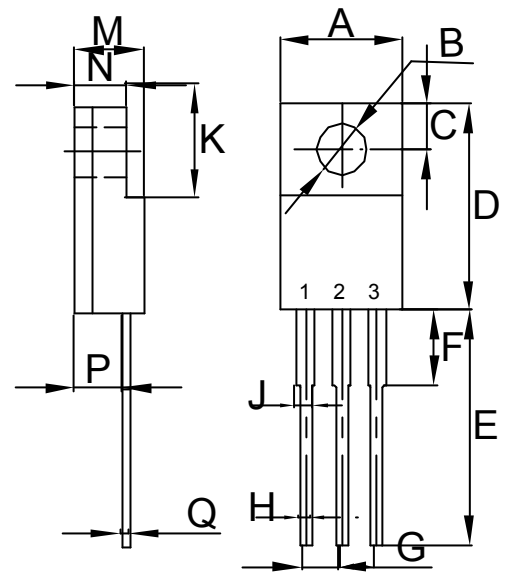
Symbol	Rating	Type	Min	Max	Unit
V_{CEO}	Collector-Emitter Breakdown Voltage ($I_C=10\text{mA}, I_E=0$)	---	400	---	V
V_{CBO}	Collector-Base Breakdown Voltage ($I_C=1\text{mA}, I_E=0$)	---	700	---	V
V_{EBO}	Emitter-Base Breakdown Voltage ($I_E=1\text{mA}, I_C=0$)	---	9.0	---	V
I_{CBO}	Collector Cutoff Current ($V_{CB}=700\text{V}, I_E=0$)	---	---	1	mA
I_{EBO}	Emitter Cutoff Current ($V_{BE}=9.0\text{V}, I_C=0$)	---	---	100	μA
h_{FE}	DC Current Gain ($I_C=2.0\text{A}, V_{CE}=5.0\text{V}$) ($I_C=5.0\text{A}, V_{CE}=5.0\text{V}$)	---	8.0 5.0	40 30	---
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage ($I_C=2.0\text{A}, I_B=0.4\text{A}$)	---	---	1.0	V
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage ($I_C=2.0\text{A}, I_B=0.4\text{A}$)	---	---	1.2	V
f_T	Current Gain-Bandwidth Product ($I_C=500\text{mA}, V_{CE}=10\text{V}, f=1.0\text{MHz}$)	---	4.0	---	MHz
C_{ob}	Output Capacitance ($V_{CB}=10\text{V}, I_E=0, f=0.1\text{MHz}$)	80	---	---	pF
t_r	Fall Time ($V_{CC}=125\text{V}, I_C=5.0\text{A}, I_{B1}=-I_{B2}=1.0\text{A}$)	---	---	0.7	μs
t_s	Storage Time	---	---	3	μs

Classification of $h_{FE(1)}$

Rank						
Range	8-15	15-20	20-25	25-30	30-35	35-40

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

ITO-220AB



PIN 1. Base
 PIN 2. Collector
 PIN 3. Emitter

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.388	.407	9.85	10.35	
B	.128	.145	3.25	3.55	
C	.101	.111	2.57	2.83	
D	.570	.610	14.9	15.5	
E	.496	.520	12.6	13.2	
F	.148	.167	3.75	4.25	
G	.096	.101	2.44	2.57	
H	.019	.029	.47	.73	
J	.048	.058	1.17	1.43	
K	.266	.285	6.75	7.25	
M	.165	.190	4.25	4.75	
N	.110	.130	2.81	3.31	
P	.097	.107	2.72	2.48	
Q	.019	.029	.47	.73	



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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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