



Micro Commercial Components

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MJE13007

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Power dissipation: 2W ($T_A=25^\circ\text{C}$)
- Collector current: 8A
- Operating and storage junction temperature range
 $T_J, T_{stg}: -55^\circ\text{C} +150^\circ\text{C}$
- 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

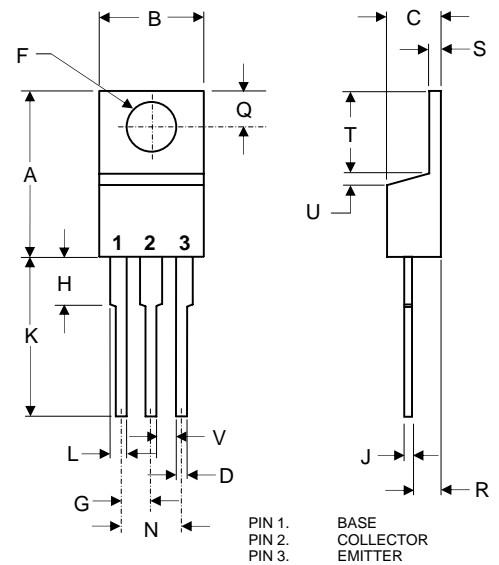
Classification of $h_{FE(1)}$

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.

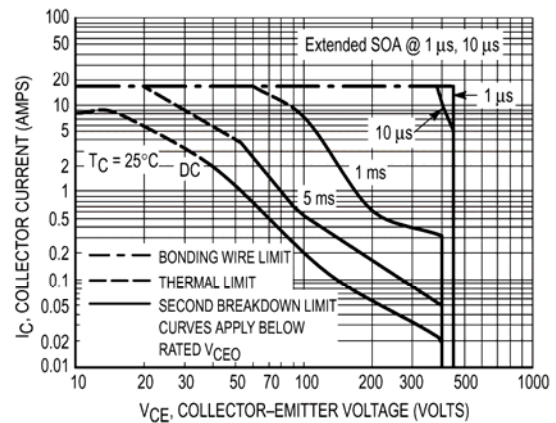
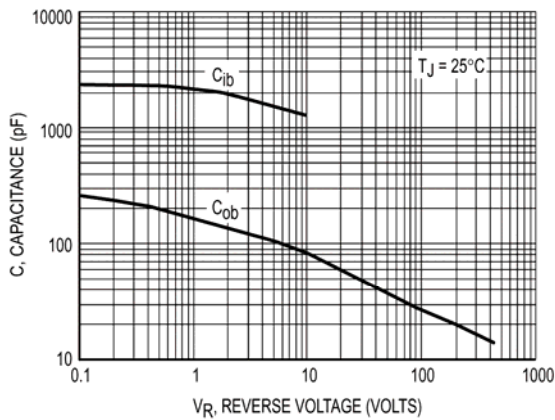
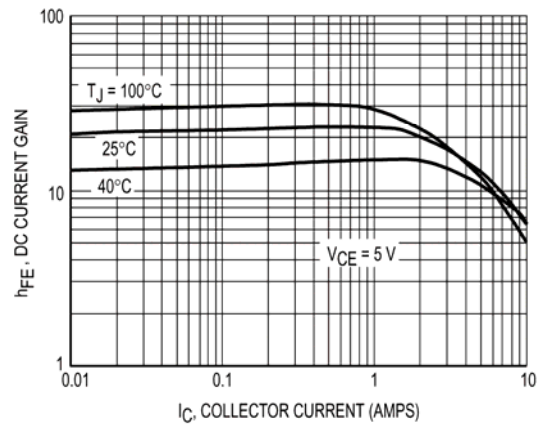
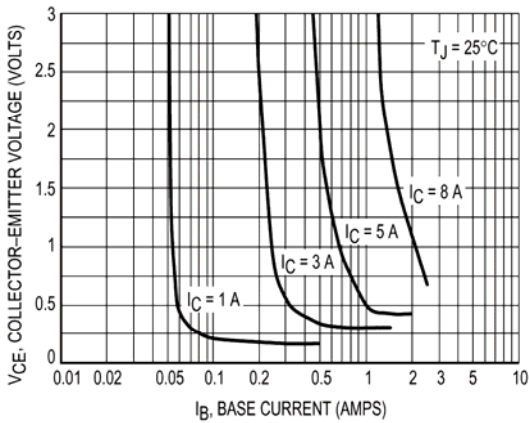
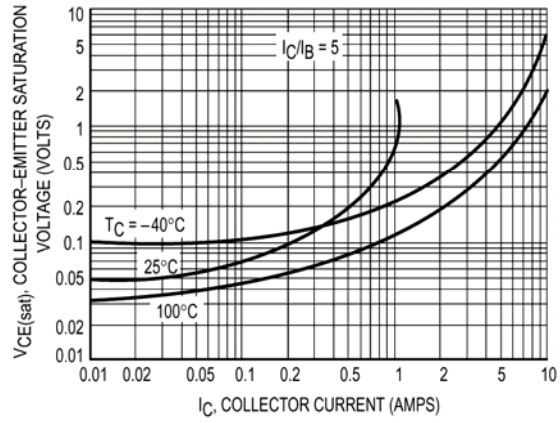
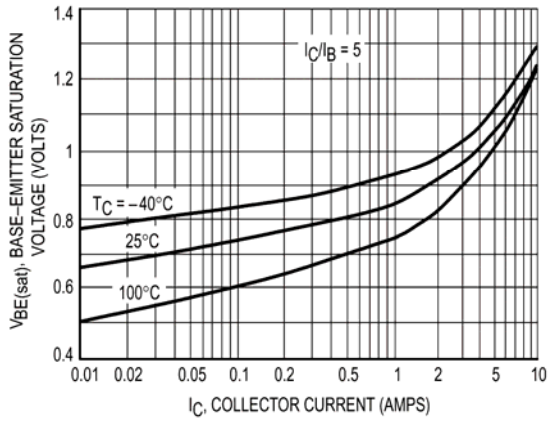
NPN
Power Transistor
8.0 Amperes
400 Volts 2 Watts

TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	----	.050	----	1.27	
V	.045	----	1.15	----	

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Ordering Information :

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

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