



Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

MJE3055

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Capable of 2.0Watts of Power Dissipation.
- Collector-current 10A
- Collector-base Voltage 70V
- Operating and storage junction temperature range: -55°C to +150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Mounting Torque: 5 in-lbs Maximum

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=200mA$, $I_B=0$)	60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=1000\mu A$, $I_E=0$)	70		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=1000\mu A$, $I_C=0$)	5		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=70Vdc$, $I_E=0$)		1000	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0Vdc$, $I_C=0$)		5000	μA

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=4.0A$, $V_{CE}=4.0Vdc$)	20	100	
$h_{FE(2)}$	DC Current Gain ($I_C=10A$, $V_{CE}=4Vdc$)	5.0		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=4A$, $I_B=0.4A$) ($I_C=10A$, $I_B=3.3A$)		1.1 1.2	Vdc Vdc
V_{BE}	Base-Emitter Voltage ($I_C=4A$, $V_{CE}=4V$)		1.8	Vdc

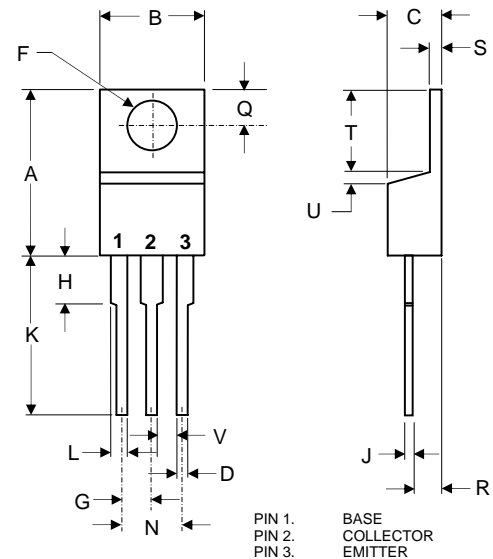
SMALL-SIGNAL CHARACTERISTICS

f_T	Transistor Frequency ($I_C=0.5A$, $V_{CE}=10Vdc$, $f=1.0MHz$)	2.0		MHz
-------	--	-----	--	-----

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

NPN Silicon Plastic-Encapsulate Transistor

TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
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	-----	

MJE3055

Typical Characteristics

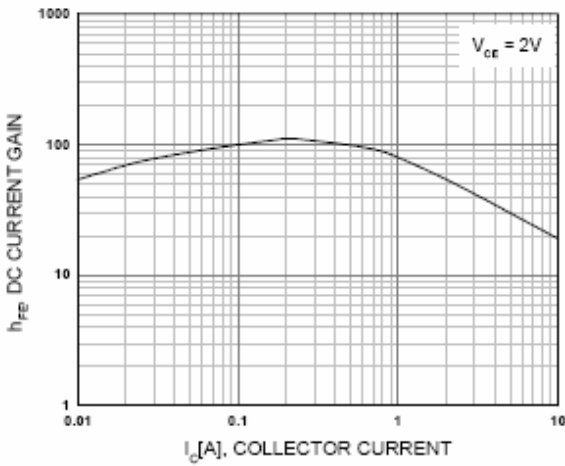


Figure 1. DC current Gain

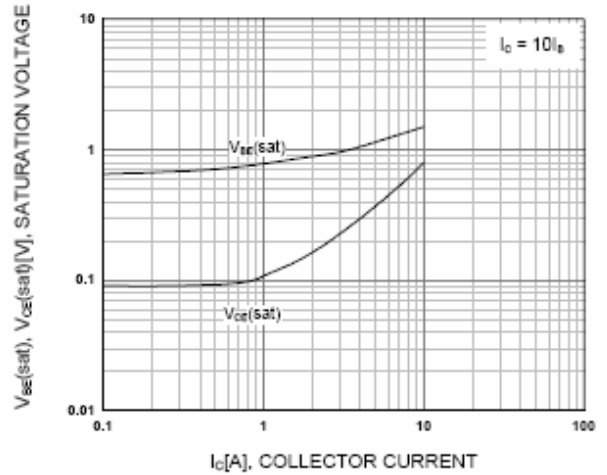


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

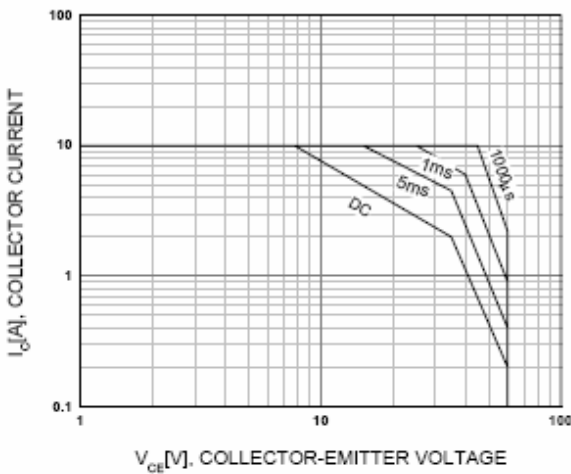


Figure 3. Safe Operating Area

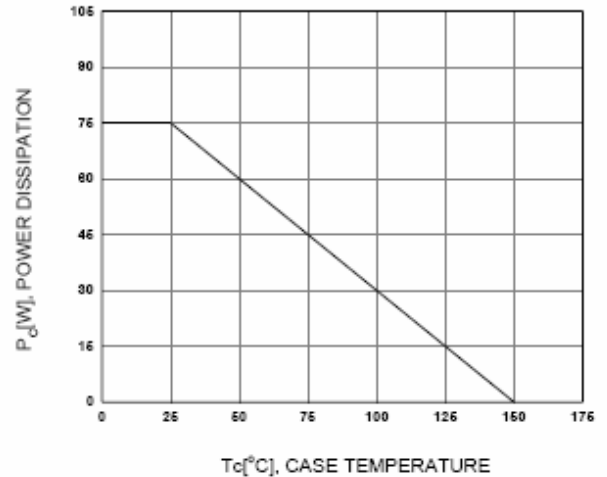


Figure 4. Power Derating



Micro Commercial Components

Ordering Information :

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

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.