Micro Commercial Components

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

2N6107

PNP Silicon Complementary Power Transistor

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking:2N6107
- Mounting Torgue: 5 in-lbs Maximum

Maximum Ratings*

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	70	V
V_{CBO}	Collector-Base Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current, Continuous Peak	7.0 10	A
I_B	Base Current	3.0	A
T_J	Operating Junction Temperature	-55 to +150	^{O}C
T_{STG}	Storage Temperature	-55 to +150	^{O}C

Thermal Characteristics

Symbol	Rating	Max	Unit
P_D	Total Device Dissipation Derate above 25^{O}C	40 0.32	W W/^{O}C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	3.125	$^{O}C/W$

Electrical Characteristics @25^{O}C Unless Otherwise Specified

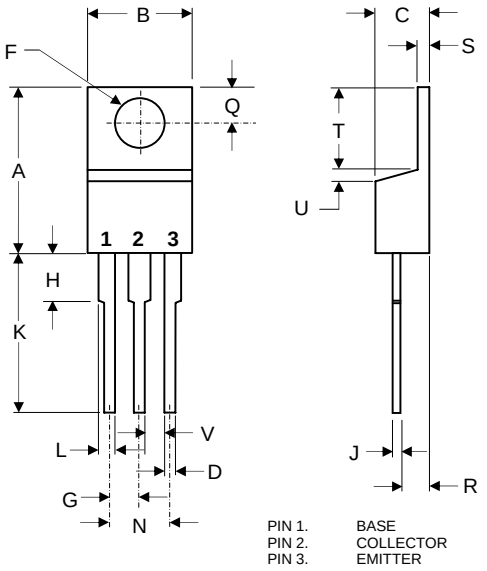
Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{CEO(sus)}$	Collector-Emitter Breakdown Voltage (Note 2) (I_C=100mAdc, I_E=0)	70	---	Vdc
I_{CEO}	Collector Cutoff Current (V_{CB}=60Vdc, I_E=0)	---	1.0	mAdc
I_{CEX}	Collector Cutoff Current (V_{CE}=80Vdc, $V_{EB(off)}$=1.5Vdc) (V_{CE}=70Vdc, $V_{EB(off)}$=1.5Vdc, T_C=125 ^{O}C)	--- ---	100 2.0	uA mA
I_{EBO}	Emitter Cutoff Current (V_{EB}=5.0Vdc, I_C=0)	---	1.0	mAdc
ON CHARACTERISTICS[1]				
h_{FE}	DC Current Gain (V_{CE}=4.0Vdc, I_C=2.0Adc) (V_{CE}=4.0Vdc, I_C=7.0Adc)	30 2.3	150 ---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=7.0Adc, I_B=3.0Adc)	---	3.5	Vdc
$V_{BE(on)}$	Base-Emitter On Voltage (I_C=7.0Adc, V_{CE}=4.0Vdc)	---	3.0	Vdc

*Indicates JEDEC Registered Data

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

2. Pulse Test: Pulse Width<300us, Duty Cycle<2.0%

TO-220



PIN 1. BASE
PIN 2. COLLECTOR
PIN 3. EMITTER

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

Symbol	Parameter	Min	Max	Units
DYNAMIC CHARACTERISTICS				
f_T	Current Gain- Bandwidth Product[2] (I_C=500mAdc, V_{CE}=4.0Vdc, f=1.0MHz)	10	---	MHz
C_{ob}	Output Capacitance (V_{CE}=10Vdc, I_E=0, f=1.0MHz)	---	250	pF
h_{fe}	Small-Signal Current Gain (I_C=0.5Adc, V_{CE}=4.0Vdc, f=50KHz)	20	---	---

(2) f_T=|hfe| X f_{test}

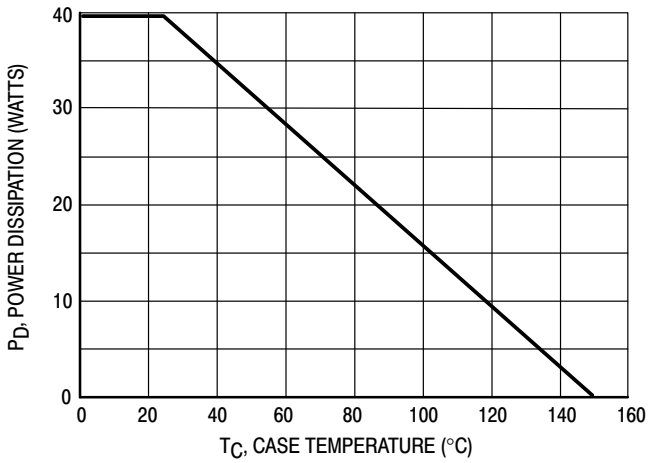


Figure 1. Power Derating

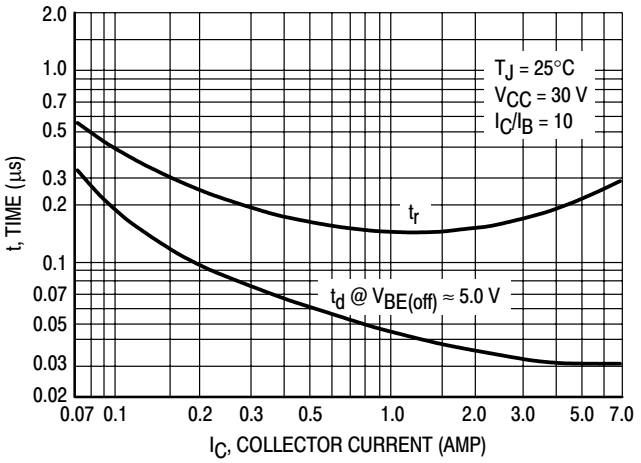


Figure 2. Turn–On Time

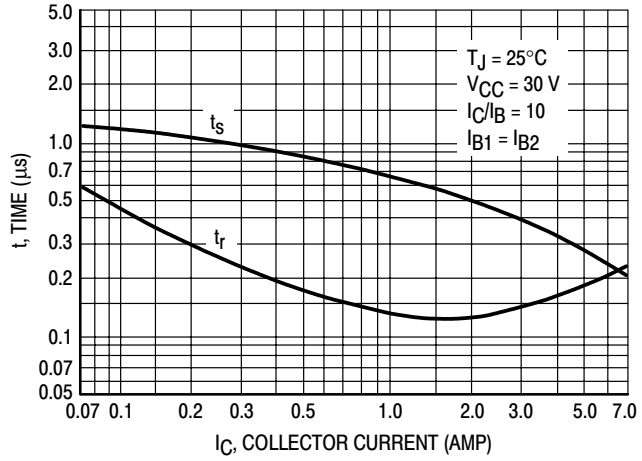


Figure 3. Turn–Off Time

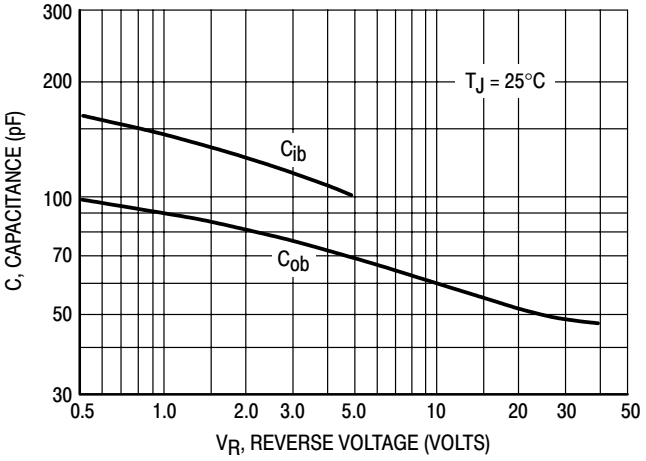


Figure 4. Capacitance

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.