Micro Commercial Components

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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_{JC}	Thermal Resistance, Junction to Case	3.125	$^{O}C/W$

Electrical Characteristics @ 25^{0}C Unless Otherwise Specified

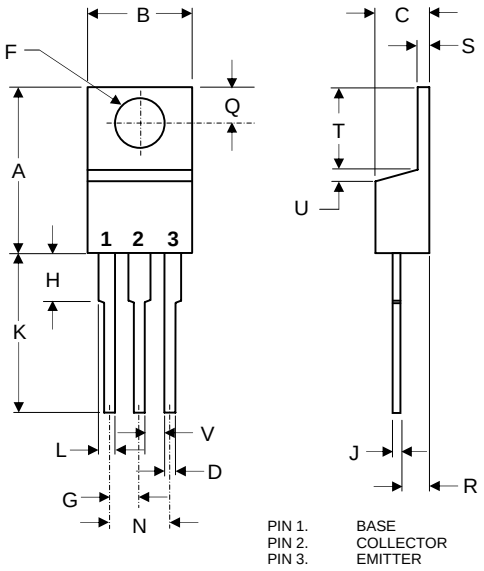
Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{CEO(sus)}$	Collector-Emitter Breakdown Voltage (Note 2) (I_C=100mAdc, I_F=0)	70	---	Vdc
I_{CEO}	Collector Cutoff Current (V_{CB}=60Vdc, I_E=0)	---	1.0	mAdc
I_{CEX}	Collector Cutoff Current (V_{CE}=80Vdc, $V_{EB(off)}$=1.5Vdc) (V_{CE}=70Vdc, $V_{EB(off)}$=1.5Vdc, T_C=125 ^{O}C)	--- ---	100 2.0	µA 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}

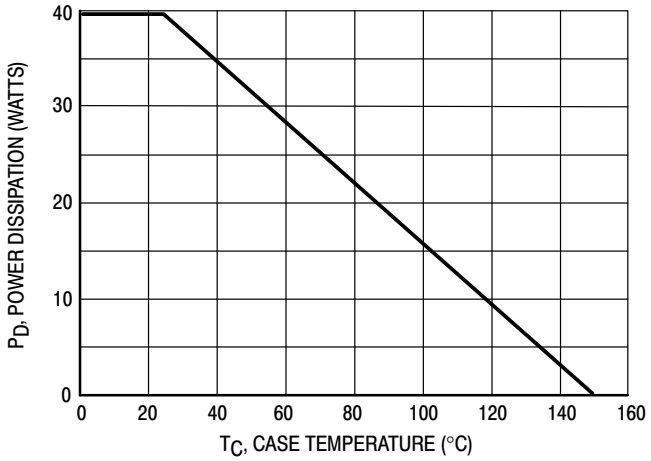


Figure 1. Power Derating

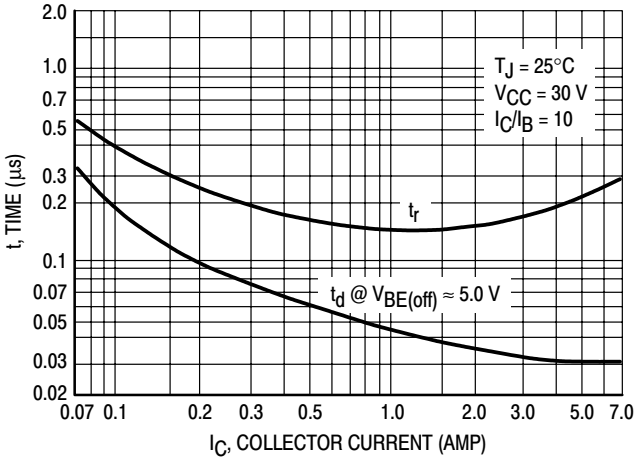


Figure 2. Turn–On Time

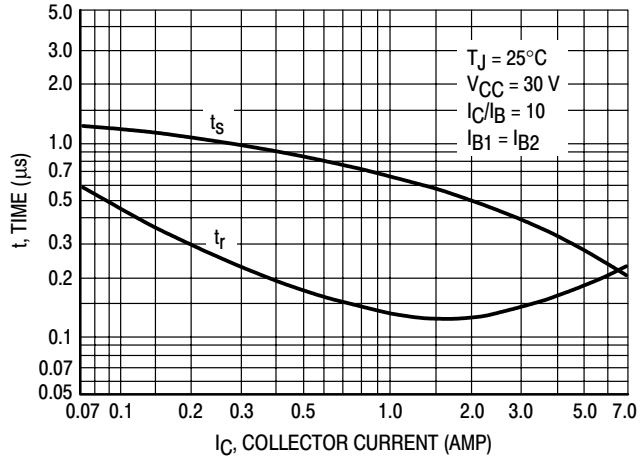


Figure 3. Turn–Off Time

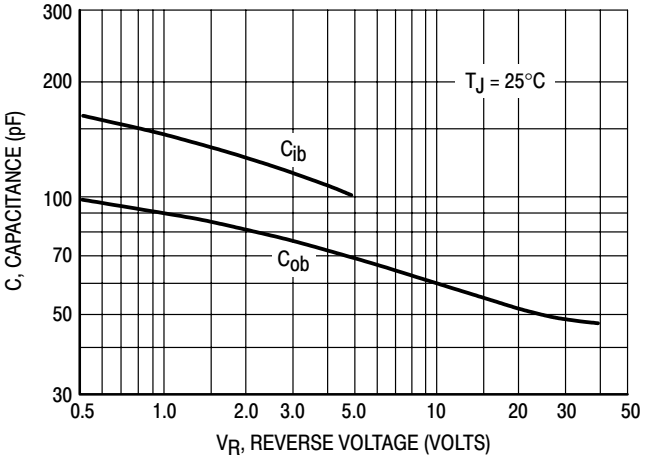


Figure 4. Capacitance

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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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