2N3867

SILICON
PNP TRANSISTOR

TO-5 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3867 is a silicon PNP power transistor designed for high speed switching and amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	4.0	V
Continuous Collector Current	I_C	3.0	A
Peak Collector Current	I_{CM}	10	A
Continuous Base Current	I_B	0.5	A
Power Dissipation	P_D	6.0	W
Power Dissipation (T_A=25°C)	P_D	1.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance	Θ_{JC}	29	°C/W
Thermal Resistance	Θ_{JA}	175	°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

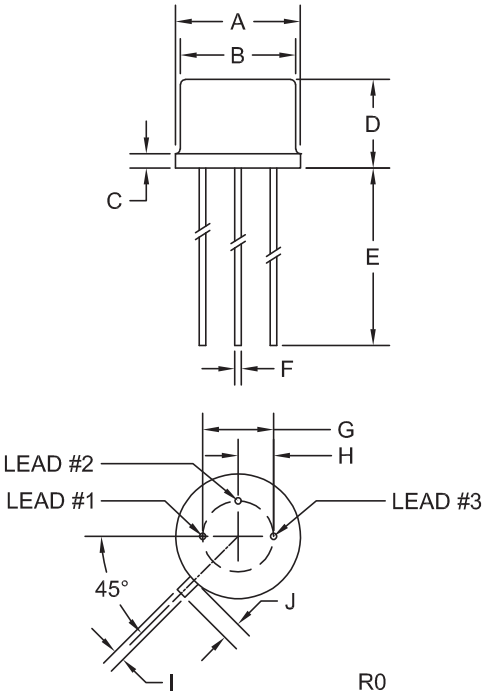
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=40V, T_C=150°C		150	μA
I_{CEX}	V_{CE}=40V, V_{BE}=2.0V		1.0	μA
BV_{CEO}	I_C=20mA	40		V
BV_{EBO}	I_E=100μA	4.0		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.5	V
$V_{CE(SAT)}$	I_C=1.5A, I_B=150mA		0.75	V
$V_{CE(SAT)}$	I_C=2.5A, I_B=250mA		1.3	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA		1.0	V
$V_{BE(SAT)}$	I_C=1.5A, I_B=150mA	0.9	1.4	V
$V_{BE(SAT)}$	I_C=2.5A, I_B=250mA		2.0	V
h_{FE}	V_{CE}=1.0V, I_C=500mA	50		
h_{FE}	V_{CE}=2.0V, I_C=1.5A	40	200	
h_{FE}	V_{CE}=3.0V, I_C=2.5A	25		
h_{FE}	V_{CE}=5.0V, I_C=3.0A	20		
f_T	V_{CE}=5.0V, I_C=100mA, f=20MHz	60		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz		120	pF
C_{ib}	V_{EB}=3.0V, I_C=0, f=100kHz		1000	pF
t_d	V_{CC}=30V, $V_{BE(off)}$=0		35	ns
t_r	I_C=1.5A, I_{B1}=150mA		65	ns
t_s	V_{CC}=30V, I_C=1.5A		325	ns
t_f	I_{B1}=I_{B2}=150mA		75	ns

R0 (8-May 2013)

2N3867

SILICON
PNP TRANSISTOR

TO-5 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	1.500	1.752	38.1	44.5
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-5 (REV: R0)

LEAD CODE:
1) Emitter
2) Base
3) Collector

MARKING: FULL PART NUMBER

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors