

## Excellent Integrated System Limited

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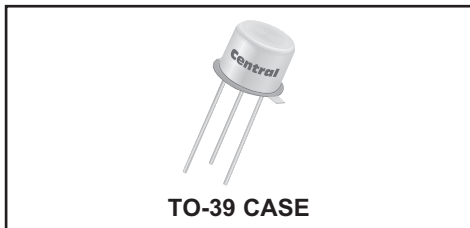
[Central Semiconductor Corp](#)  
[2N2218A](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

**2N2218  
2N2218A**

**SILICON  
NPN TRANSISTORS**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N2218 and 2N2218A are silicon NPN transistors manufactured by the epitaxial planar process, and designed for small signal general purpose and switching applications.

**MARKING: FULL PART NUMBER**

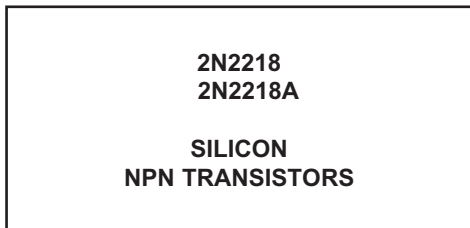
**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	2N2218	2N2218A	UNITS
Collector-Base Voltage	V <sub>CB0</sub>	60	75	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	6.0	V
Continuous Collector Current	I <sub>C</sub>		800	mA
Power Dissipation	P <sub>D</sub>		800	mW
Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>		3.0	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +200		°C

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C)

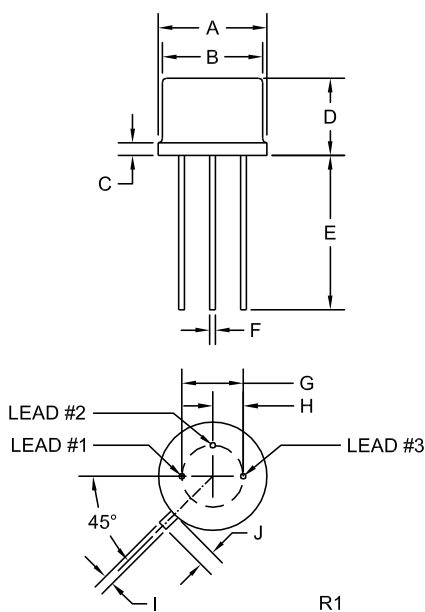
SYMBOL	TEST CONDITIONS	2N2218		2N2218A		UNITS
		MIN	MAX	MIN	MAX	
I <sub>CBO</sub>	V <sub>CB</sub> =50V	-	10	-	-	nA
I <sub>CBO</sub>	V <sub>CB</sub> =60V	-	-	-	10	nA
I <sub>CEV</sub>	V <sub>CE</sub> =60V, V <sub>EB</sub> =3.0V	-	-	-	10	nA
I <sub>EBO</sub>	V <sub>EB</sub> =3.0V	-	10	-	10	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	60	-	75	-	V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	30	-	40	-	V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	5.0	-	6.0	-	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	0.4	-	0.3	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	-	1.6	-	1.0	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	1.3	-	1.2	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	-	2.6	-	2.0	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =100μA	20	-	20	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA	25	-	25	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	35	-	35	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =150mA	40	120	40	120	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =150mA	20	-	20	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	20	-	-	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	-	-	25	-	

R1 (31-July 2013)



ELECTRICAL CHARACTERISTICS - Continued: (T <sub>A</sub> =25°C)		2N2218		2N2218A		UNITS
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	
f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =20mA	250	-	250	-	MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, f=100kHz	-	8.0	-	8.0	pF
t <sub>on</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	35	-	35	ns
t <sub>off</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA, I <sub>B1</sub> =I <sub>B2</sub> =15mA	-	285	-	285	ns

**TO-39 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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	0.500	-	12.70	-
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-39 (REV: R1)

**LEAD CODE:**

- 1) Emitter
- 2) Base
- 3) Collector

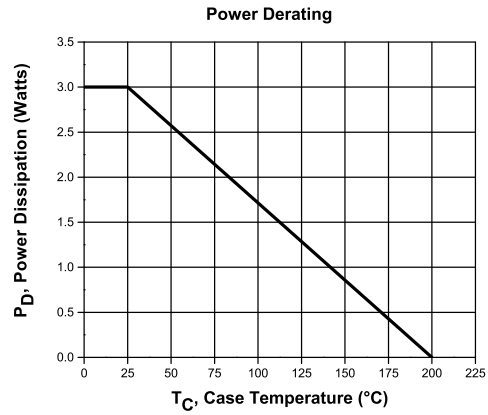
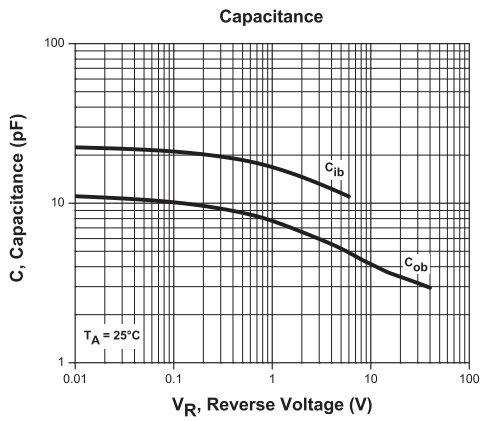
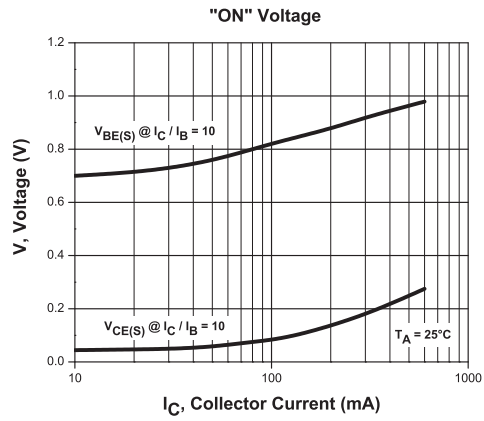
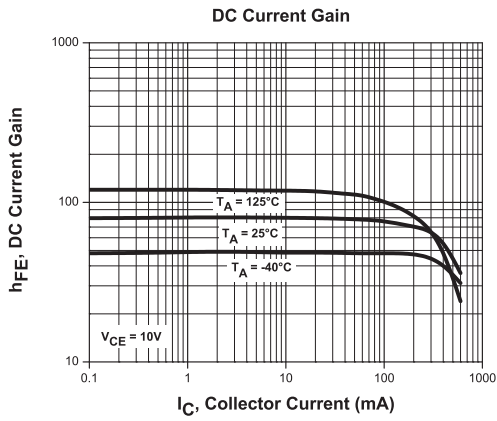
**MARKING: FULL PART NUMBER**

R1 (31-July 2013)

2N2218  
2N2218A  
  
SILICON  
NPN TRANSISTORS



**TYPICAL ELECTRICAL CHARACTERISTICS**



R1 (31-July 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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.centalsemi.com](http://www.centalsemi.com)

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