



# THE DATASHEET OF MPQ2369



# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MPQ2369

NPN SILICON QUAD TRANSISTOR

JEDEC TO-116 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR MPQ2369 is comprised of four independent silicon transistors mounted in a 14 PIN DIP, designed for high speed saturated applications.

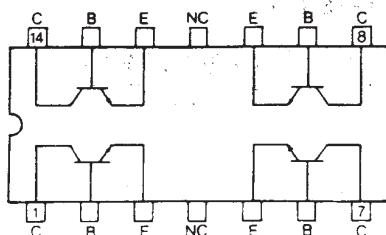
## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V <sub>CB0</sub>	40	V
Collector-Emitter Voltage	V <sub>CE0</sub>	15	V
Emitter-Base Voltage	V <sub>EB0</sub>	4.5	V
Collector Current	I <sub>C</sub>	500	mA
Power Dissipation	P <sub>D</sub> (EACH TRANSISTOR)	500	mW
Power Dissipation	P <sub>D</sub> (TOTAL PACKAGE)	1500	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
I <sub>CB0</sub>	V <sub>CB</sub> =20V			400	nA
I <sub>EB0</sub>	V <sub>EB</sub> =3.0V			500	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	40			V
BV <sub>CE0</sub>	I <sub>C</sub> =10mA	15			V
BV <sub>EB0</sub>	I <sub>E</sub> =10μA	4.5			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA			0.25	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1.0mA			0.9	V
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =10mA	40			
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =100mA	20			
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz	450			MHz
C <sub>ob</sub>	V <sub>CB</sub> =5.0V, I <sub>E</sub> =0, f=140kHz			4.0	pF
C <sub>ib</sub>	V <sub>BE</sub> =0.5V, I <sub>C</sub> =0, f=140kHz			5.0	pF
t <sub>on</sub>	V <sub>CC</sub> =3.0V, I <sub>C</sub> =10mA, I <sub>B1</sub> =3.0mA		9.0		ns
t <sub>off</sub>	V <sub>CC</sub> =3.0V, I <sub>C</sub> =10mA, I <sub>B1</sub> =3.0mA, I <sub>B2</sub> =1.5mA		12		ns

CONNECTION DIAGRAM



## 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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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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