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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







## MPQ7093

# SILICON HIGH VOLTAGE QUAD PNP TRANSISTOR

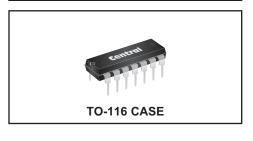


www.centralsemi.com

# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MPQ7093 is comprised of four independent PNP silicon transistors mounted in a 14-pin DIP, designed for high voltage amplifier applications.





MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	250	V
Collector-Emitter Voltage	VCEO	250	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	l <sub>C</sub>	500	mA
Power Dissipation (per transistor)	$P_{D}$	750	mW
Power Dissipation (total package)	$P_{D}$	1700	mW
Power Dissipation (T <sub>C</sub> =25°C) (total package)	$P_{D}$	3.0	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

ΕI	<b>ECTRICAL</b>	CHADACTEDISTICS	PER TRANSISTOR: (T <sub>A</sub> =25°C)	
	ECTRICAL	CHARACTERISTICS	FER INANSISTOR. (1A-23 C)	

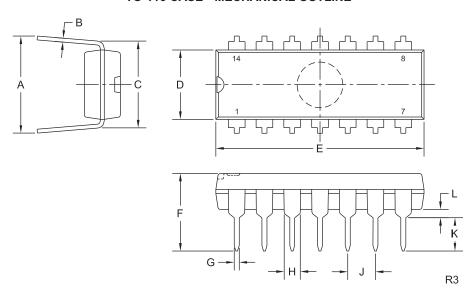
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<sup>I</sup> CBO	V <sub>CB</sub> =180V			250	nA
I <sub>EBO</sub>	V <sub>EB</sub> =3.0V			100	nA
BV <sub>CBO</sub>	I <sub>C</sub> =100μA	250			V
<b>BV</b> CEO	I <sub>C</sub> =1.0mA	250			V
<b>BV</b> EBO	I <sub>E</sub> =100μA	5.0			V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =20mA, I <sub>B</sub> =2.0mA			0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =20mA, I <sub>B</sub> =2.0mA			0.9	V
hFE	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA	25			
hFE	$V_{CE}$ =10V, $I_{C}$ =10mA	35			
h <sub>FE</sub>	$V_{CE}$ =10V, $I_{C}$ =30mA	25			
f <sub>T</sub>	$V_{CE}$ =20V, $I_{C}$ =10mA, f=100MHz	50			MHz
C <sub>ob</sub>	$V_{CB}$ =20V, $I_E$ =0, f=1.0MHz			5.0	pF
$c_{ib}$	$V_{EB}$ =3.0V, $I_{C}$ =0, f=1.0MHz			75	pF

#### MPQ7093

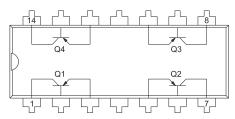
# SILICON **HIGH VOLTAGE QUAD PNP TRANSISTOR**



#### **TO-116 CASE - MECHANICAL OUTLINE**



## **PIN CONFIGURATION**



# LEAD CODE:

- 1) Collector Q1 2) Base Q1 3) Emitter Q1
- 8) Collector Q3 9) Base Q3 10) Emitter Q3
- 4) No Connection 11) No Connection 5) Emitter Q2 6) Base Q2
  - 12) Emitter Q4 13) Base Q4
- 7) Collector Q2
- 14) Collector Q4

TO-116 (REV: R3)

**MILLIMETERS** MAX

9.9

0.4

6.6

19.3

7.6

0.6

MIN

7.9

0.2

6.1

18.8

0.4

**DIMENSIONS INCHES** 

MAX

0.390

0.014

0.260

0.760

0.300

MIN

0.310

0.008

0.240

0.740

0.015

0.310

0.014 0.022

0.050

0.100

0.125 0.150

SYMBOL

Α

В

С

D

Ε

F

G

Н

Κ

**MARKING: FULL PART NUMBER** 

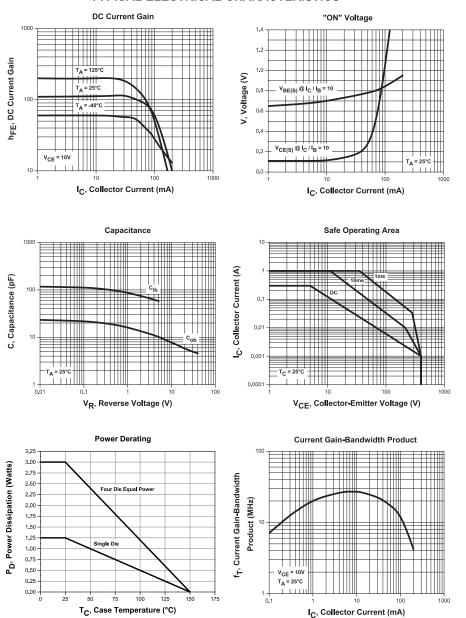
R0 (14-June 2013)

## **MPQ7093**

# SILICON HIGH VOLTAGE QUAD PNP TRANSISTOR



### TYPICAL ELECTRICAL CHARACTERISTICS



#### **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 guick 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

#### 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).
- If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

#### **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

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