

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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#### **MMPQ6502**

#### SURFACE MOUNT COMPLEMENTARY SILICON QUAD TRANSISTORS



www.centralsemi.com

## **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MMPQ6502, consisting of two complementary pairs of transistors, available in the SOIC-16 surface mount package, is designed for general purpose amplifier and switching applications.

**MARKING: FULL PART NUMBER** 



MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	60	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	IC	1.0	Α
Power Dissipation	$P_{D}$	1.0	W
Operating and Storage Junction Temperature	T <sub>J,</sub> T <sub>stg</sub>	-55 to +150	°C
Thermal Resistance (Total Package)	$\Theta_{\sf JA}$	125	°C/W
Thermal Resistance (Each Transistor)	$\Theta_{\sf JA}$	240	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =50V		30	nA
I <sub>EBO</sub>	V <sub>BE</sub> =3.0V		30	nA
<b>BV</b> CBO	I <sub>C</sub> =10μA	60		V
BVCEO	I <sub>C</sub> =10mA	30		V
BVEBO	I <sub>E</sub> =10μA	5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		0.4	V
VCE(SAT)	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA		1.4	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		1.3	V
V <sub>BE(SAT)</sub>	$I_C$ =300mA, $I_B$ =30 mA		2.0	V
hFE	$V_{CE}$ =10V, $I_{C}$ =1.0mA	50		
hFE	$V_{CE}$ =10V, $I_{C}$ =10mA	75		
h <sub>FE</sub>	$V_{CE}$ =10V, $I_{C}$ =150mA	100		
hFE	$V_{CE}$ =10V, $I_{C}$ =300mA	30		
fT	$V_{CE}$ =20V, $I_{C}$ =50mA, f=100MHz	200		MHz
$C_{ib}$	V <sub>BE</sub> =2.0V, f=1.0MHz		30	pF
C <sub>ob</sub>	V <sub>CB</sub> =10V, f=1.0MHz		8.0	pF

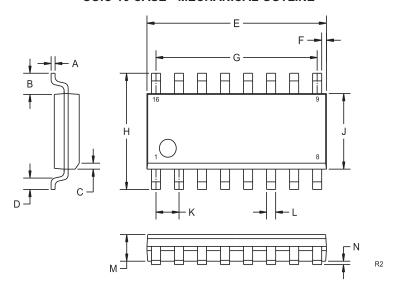
R2 (1-March 2010)

#### MMPQ6502

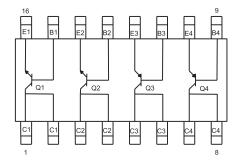
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## **SOIC-16 CASE - MECHANICAL OUTLINE**



### **PIN CONFIGURATION**



MARKING: FULL PART NUMBER

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0.007	0.010	0.19	0.25		
В	0.041		1.04			
C	0.010	0.020	0.25	0.50		
D	0.020	0.035	0.50	0.90		
Е	0.386	0.394	9.80	10.00		
F	0.010		0.25			
G	0.350		8.89			
Η	0.228	0.244	5.80	6.20		
J	0.150	0.157	3.80	4.00		
K	0.050		1.27			
L	0.0138	0.0201	0.35	0.51		
М	0.0531	0.0689	1.35	1.75		
Z	0.0039	0.0098	0.10	0.25		
COIC 16 (DEV/D2)						

SOIC-16 (REV:R2)