



**THE DATASHEET OF  
MMPQ6502 TR13**



**MMPQ6502**

**SURFACE MOUNT  
COMPLEMENTARY  
SILICON QUAD TRANSISTORS**



[www.centrasemi.com](http://www.centrasemi.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:** ( $T_A=25^{\circ}\text{C}$ )

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	$I_C$	1.0	A
Power Dissipation	$P_D$	1.0	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-55 to +150	$^{\circ}\text{C}$
Thermal Resistance (Total Package)	$\theta_{JA}$	125	$^{\circ}\text{C/W}$
Thermal Resistance (Each Transistor)	$\theta_{JA}$	240	$^{\circ}\text{C/W}$

**SYMBOL**

$V_{CBO}$	60	V
$V_{CEO}$	30	V
$V_{EBO}$	5.0	V
$I_C$	1.0	A
$P_D$	1.0	W
$T_J, T_{stg}$	-55 to +150	$^{\circ}\text{C}$
$\theta_{JA}$	125	$^{\circ}\text{C/W}$
$\theta_{JA}$	240	$^{\circ}\text{C/W}$

**UNITS**

**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=50\text{V}$		30	nA
$I_{EBO}$	$V_{BE}=3.0\text{V}$		30	nA
$BV_{CBO}$	$I_C=10\mu\text{A}$	60		V
$BV_{CEO}$	$I_C=10\text{mA}$	30		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.4	V
$V_{CE(SAT)}$	$I_C=300\text{mA}, I_B=30\text{mA}$		1.4	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.3	V
$V_{BE(SAT)}$	$I_C=300\text{mA}, I_B=30\text{mA}$		2.0	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	50		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	75		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=300\text{mA}$	30		
$f_T$	$V_{CE}=20\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	200		MHz
$C_{ib}$	$V_{BE}=2.0\text{V}, f=1.0\text{MHz}$		30	pF
$C_{ob}$	$V_{CB}=10\text{V}, f=1.0\text{MHz}$		8.0	pF

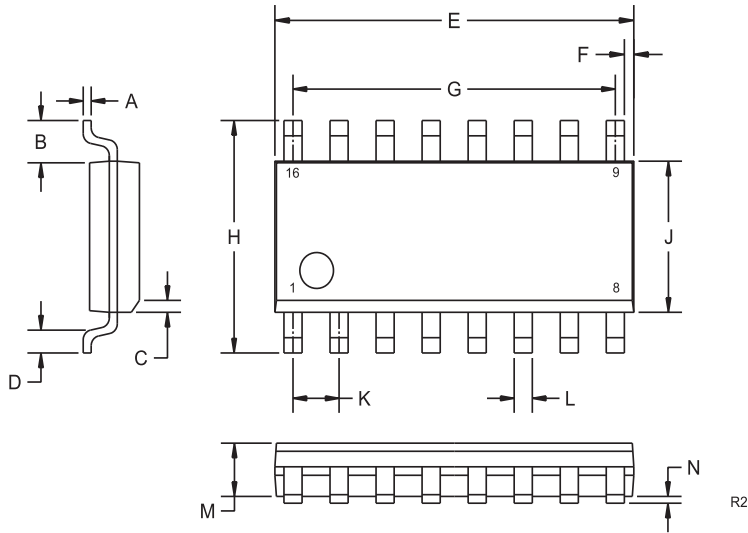
R2 (1-March 2010)

**MMPQ6502**

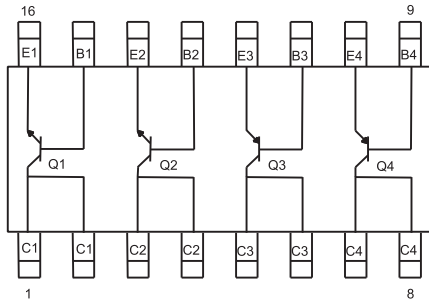
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**SOIC-16 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



**MARKING: FULL PART NUMBER**

<b>DIMENSIONS</b>				
<b>SYMBOL</b>	<b>INCHES</b>		<b>MILLIMETERS</b>	
	<b>MIN</b>	<b>MAX</b>	<b>MIN</b>	<b>MAX</b>
A	0.007	0.010	0.19	0.25
B	0.041		1.04	
C	0.010	0.020	0.25	0.50
D	0.020	0.035	0.50	0.90
E	0.386	0.394	9.80	10.00
F	0.010		0.25	
G	0.350		8.89	
H	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
M	0.0531	0.0689	1.35	1.75
N	0.0039	0.0098	0.10	0.25

SOIC-16 (REV:R2)

R2 (1-March 2010)

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