

MMPQ6502

**SURFACE MOUNT
COMPLEMENTARY
SILICON QUAD TRANSISTORS**



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)	θ_{JA}	125	$^{\circ}\text{C/W}$
Thermal Resistance (Each Transistor)	θ_{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	$^{\circ}\text{C}$
θ_{JA}	125	$^{\circ}\text{C/W}$
θ_{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

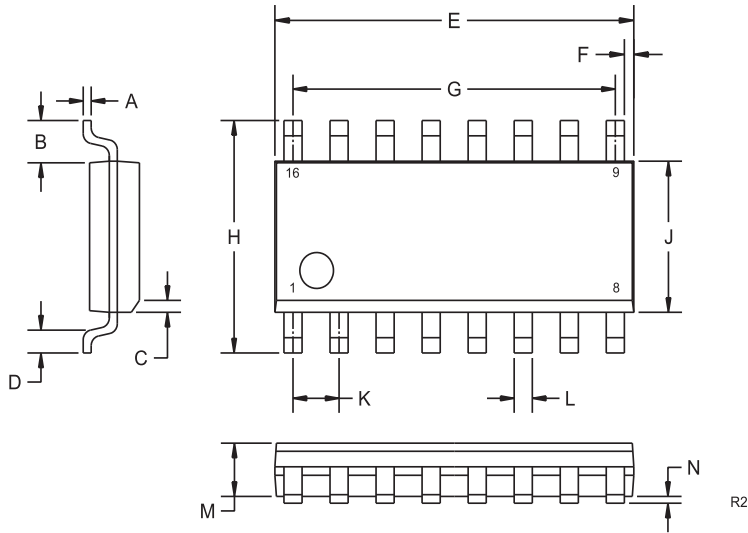
R2 (1-March 2010)

MMPQ6502

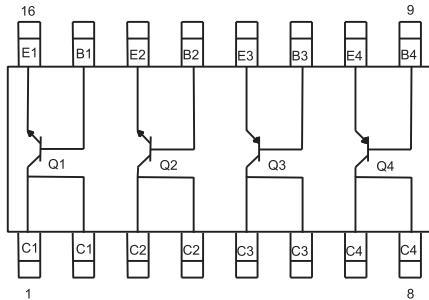
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SOIC-16 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



MARKING: FULL PART NUMBER

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
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)