

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors
www.centrasemi.com

MPQ6002
MPQ6502

SILICON QUAD
COMPLEMENTARY PAIR TRANSISTORS

TO-116 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPQ6002, MPQ6502 types are Silicon Complementary Pair Transistors, mounted in a 14 PIN DIP package, designed for general purpose amplifier and switching applications.

MAXIMUM RATINGS: (T_A=25°C)

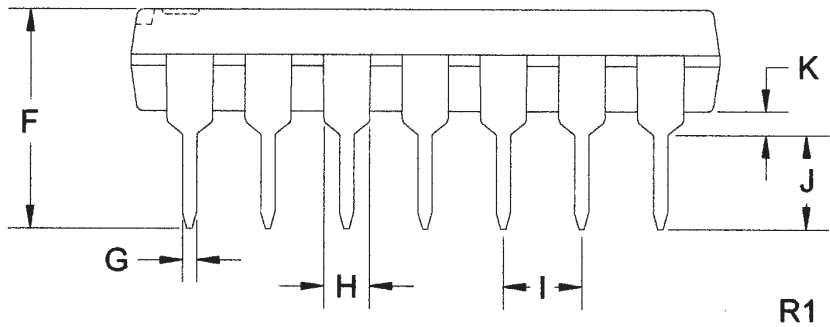
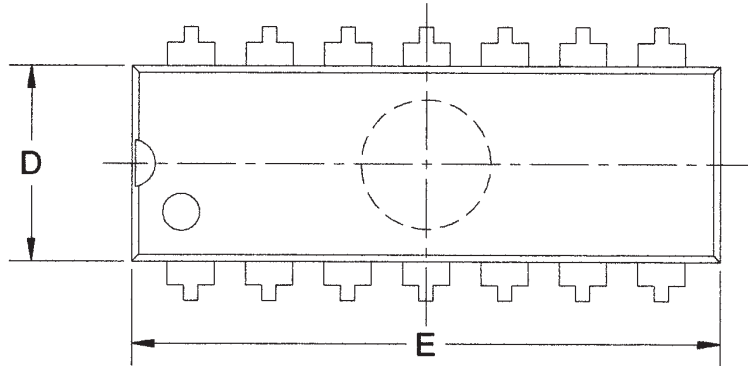
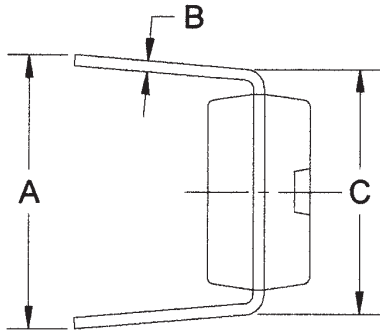
	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	500	mA
Power Dissipation (Each Transistor)	P _D	650	mW
Power Dissipation (Total Package)	P _D	1.25	W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance (Total Package)	θ _{JA}	100	°C/W

ELECTRICAL CHARACTERISTICS PER TRANSISTOR: (T_A=25°C unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
I _{CBO}	V _{CB} =50V			30	nA
I _{EBO}	V _{EB} =3.0V			30	nA
BV _{CBO}	I _C =10μA	60			V
BV _{CEO}	I _C =10mA	30			V
BV _{EBO}	I _E =10μA	5.0			V
V _{CE(SAT)}	I _C =150mA, I _B =15mA			0.4	V
V _{CE(SAT)}	I _C =300mA, I _B =30mA			1.4	V
V _{BE(SAT)}	I _C =150mA, I _B =15mA			1.3	V
V _{BE(SAT)}	I _C =300mA, I _B =30mA			2.0	V
h _{FE}	V _{CE} =10V, I _C =1.0mA	50			
h _{FE}	V _{CE} =10V, I _C =10mA	75			
h _{FE}	V _{CE} =10V, I _C =150mA	100			
h _{FE}	V _{CE} =10V, I _C =300mA	30			
f _T	V _{CE} =20V, I _C =50mA, f=100MHz	200			MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz			8.0	pF
C _{ib}	V _{EB} =2.0V, I _C =0, f=1.0MHz			30	pF
t _{on}	V _{CC} =30V, V _{BE} =0.5, I _C =150mA, I _{B1} =15mA		30		ns
t _{off}	V _{CC} =30V, I _C =150mA, I _{B1} =I _{B2} =15mA		225		ns

(See Reverse Side)

TO-116 CASE - MECHANICAL OUTLINE

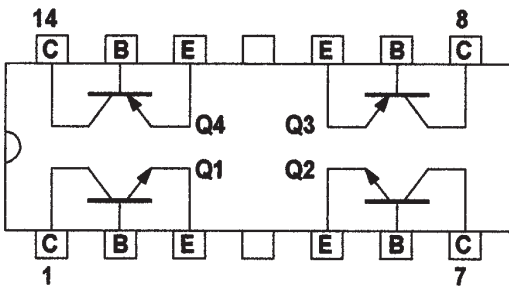


SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.310	0.390	7.9	9.9
B	0.008	0.014	0.2	0.4
C	0.310		7.9	
D	0.240	0.260	6.1	6.6
E	0.740	0.760	18.8	19.3
F	-	0.300	-	7.6
G	0.014	0.022	0.4	0.6
H	0.050		1.3	
I	0.100		2.5	
J	0.125	0.150	3.2	3.8
K	0.015	-	0.4	-

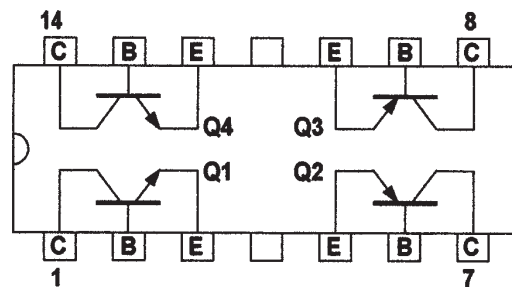
TO-116 (REV: R1)

LEAD CODE

MPQ6002



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