

MMPQ3904
SURFACE MOUNT
NPN SILICON
QUAD TRANSISTOR



CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MMPQ3904, consisting of four transistors and available in the SOIC-16 surface mount package, is designed for general purpose amplifier and switching applications.

MAXIMUM RATINGS (T_A=25°C)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage
Junction Temperature
Thermal Resistance (Total Package)
Thermal Resistance (Each Transistor)

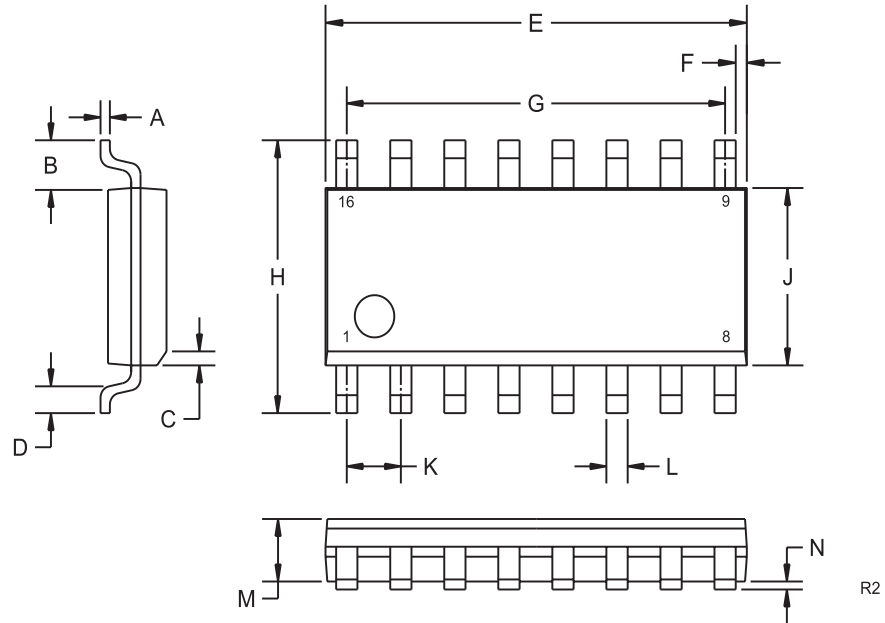
SYMBOL		UNITS
V _{CB0}	60	V
V _{CEO}	40	V
V _{EBO}	6.0	V
I _C	200	mA
P _D	1000	mW
T _J , T _{stg}	-55 to +150	°C
θ _{JA}	125	°C/W
θ _{JA}	240	°C/W

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

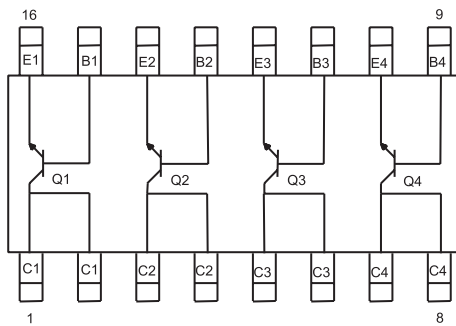
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CEV}	V _{CE} =30V, V _{EB} =3.0V			50	nA
BV _{CB0}	I _C =10μA	60			V
BV _{CEO}	I _C =1.0mA	40			V
BV _{EBO}	I _E =10μA	6.0			V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA			0.20	V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA			0.30	V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA	0.65		0.85	V
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA			0.95	V
h _{FE}	V _{CE} =1.0V, I _C =0.1mA	40			
h _{FE}	V _{CE} =1.0V, I _C =1.0mA	70			
h _{FE}	V _{CE} =1.0V, I _C =10mA	100		300	
h _{FE}	V _{CE} =1.0V, I _C =50mA	60			
h _{FE}	V _{CE} =1.0V, I _C =100mA	30			
f _T	V _{CE} =20V, I _C =10mA, f=100MHz		450		MHz
C _{ib}	V _{EB} =0.5V, f=1.0MHz		6.0		pF
C _{ob}	V _{CB} =5.0V, f=1.0MHz		2.5		pF
NF	V _{CE} =5.0V, I _C =100μA, R _S =1.0kΩ, f=1.0Hz to 15.7kHz		2.0		dB
t _d	V _{CC} =3.0V, V _{BE} =0.5V, I _C =10mA, I _{B1} =1.0mA		18		ns
t _r	V _{CC} =3.0V, V _{BE} =0.5V, I _C =10mA, I _{B1} =1.0mA		20		ns
t _s	V _{CC} =3.0V, I _C =10mA, I _{B1} = I _{B2} =1.0mA		150		ns
t _f	V _{CC} =3.0V, I _C =10mA, I _{B1} = I _{B2} =1.0mA		25		ns

R0 (7-November 2001)

SOIC-16 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



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)