Central™
Semiconductor Corp.

145 Adams Ave., Hauppauge, NY 11788 USA
Phone (631) 435-1110 FAX (631) 435-1824
www.centralsemi.com

Manufacturers of World Class Discrete Semiconductors

MPQ2222
MPQ2222A

NPN SILICON QUAD TRANSISTOR

TO-116 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPQ2222, MPQ2222A types are comprised of four independent Silicon NPN Transistors mounted in a 14 PIN DIP, designed for general purpose amplifier and switching applications.

MAXIMUM RATINGS: (T_A=25°C)

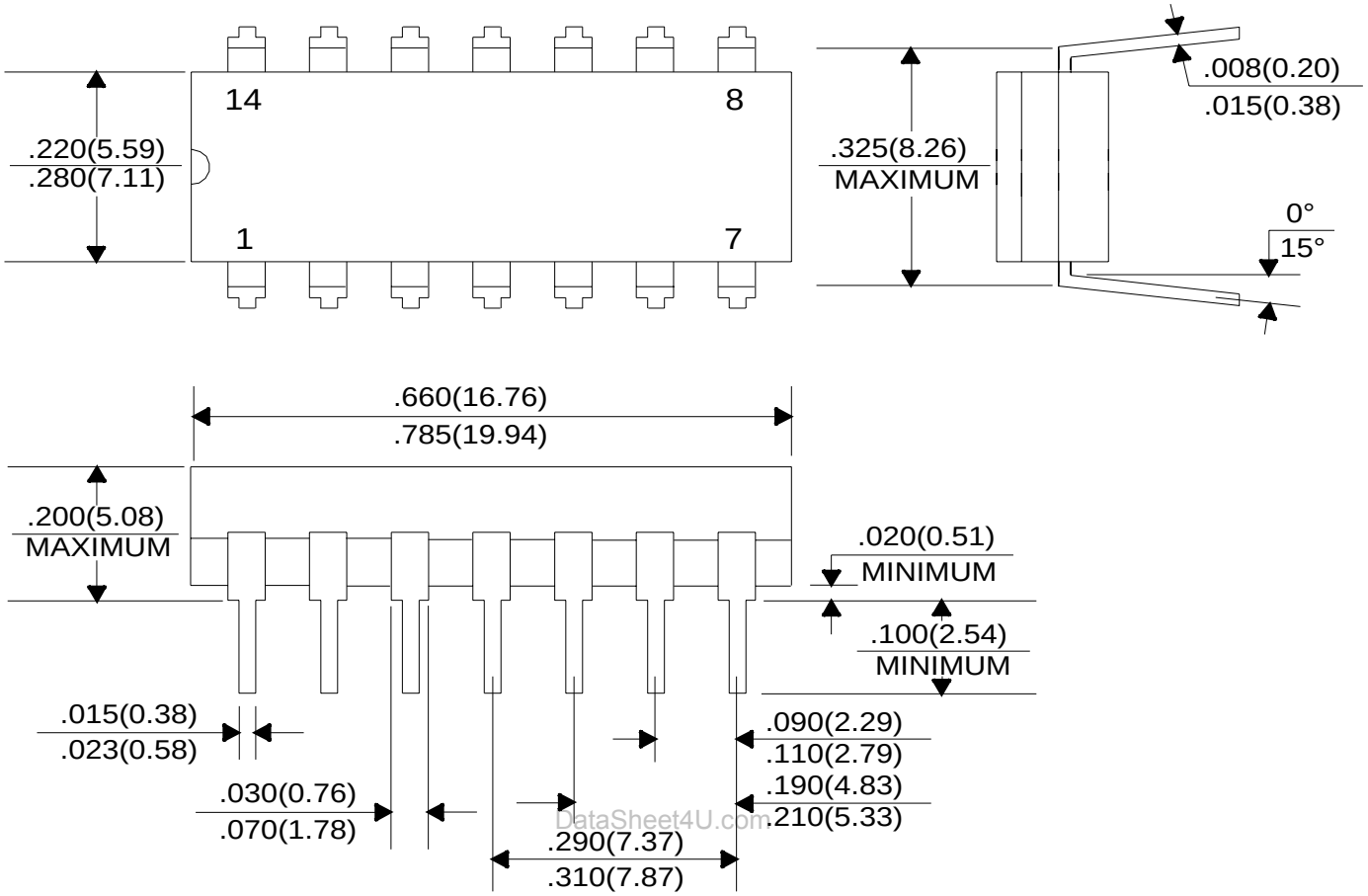
	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	500	mA
Power Dissipation (Each Transistor)	P_D	650	mW
Power Dissipation (Total Package)	P_D	1.9	W
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance (Total Package)	Θ_{JA}	66	°C/W

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

		MPQ2222		MPQ2222A		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}=50V		50			nA
I_{CBO}	V_{CB}=60V				10	nA
I_{EBO}	V_{EB}=3.0V		100		100	nA
BV_{CBO}	I_C=10μA	60		75		V
BV_{CEO}	I_C=10mA	40		40		V
BV_{EBO}	I_E=10μA	5.0		6.0		V
$V_{CE(SAT)}$	I_C=150mA, I_B=15mA		0.4		0.3	V
$V_{CE(SAT)}$	I_C=300mA, I_B=30mA		1.6			V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA				1.0	V
$V_{BE(SAT)}$	I_C=150mA, I_B=15mA		1.3	0.6	1.2	V
$V_{BE(SAT)}$	I_C=300mA, I_B=30mA		2.6			V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA				2.0	V
h_{FE}	V_{CE}=10V, I_C=100μA			35		
h_{FE}	V_{CE}=10V, I_C=1.0mA			50		
h_{FE}	V_{CE}=10V, I_C=10mA	75		75		
h_{FE}	V_{CE}=10V, I_C=150mA	100	300	100	300	
h_{FE}	V_{CE}=10V, I_C=300mA	30				
h_{FE}	V_{CE}=10V, I_C=500mA			40		
f_T	V_{CE}=20V, I_C=20mA, f=100MHz	200		200		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		8.0		8.0	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		30		30	pF
t_r	V_{CC}=30V, V_{BE}=0.5, I_C=150mA, I_{B1}=15mA				35	ns
t_s	V_{CC}=30V, I_C=150mA, I_{B1}=I_{B2}=15mA				285	ns

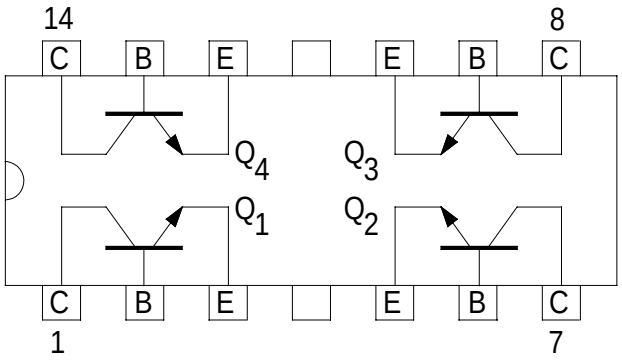
R1

TO-116 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

PIN CONFIGURATION



Central™
Semiconductor Corp.