

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors  
[www.centalsemi.com](http://www.centalsemi.com)

MPQ3798  
MPQ3799

PNP SILICON QUAD TRANSISTOR

TO-116 CASE

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPQ3798, MPQ3799 types are comprised of four independent Silicon PNP Transistors mounted in a 14 PIN DIP, designed for low level and low noise applications.

## MAXIMUM RATINGS: ( $T_A=25^\circ\text{C}$ )

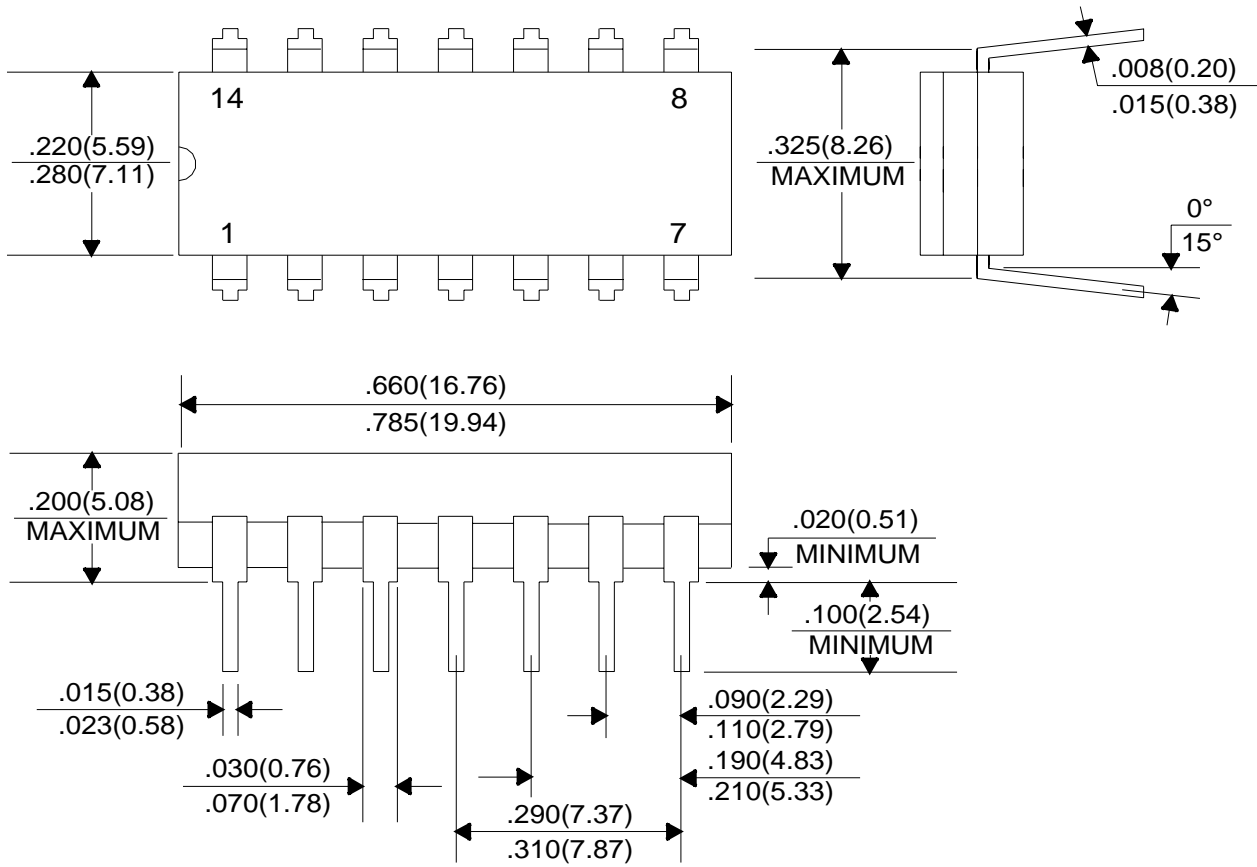
	SYMBOL	MPQ3798	MPQ3799	UNITS
Collector-Base Voltage	$V_{CBO}$	60	60	V
Collector-Emitter Voltage	$V_{CEO}$	40	60	V
Emitter-Base Voltage	$V_{EBO}$		5.0	V
Collector Current	$I_C$		50	mA
Power Dissipation (Each Transistor)	$P_D$		500	mW
Power Dissipation (Total Package)	$P_D$		900	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$		-65 to +150	$^\circ\text{C}$
Thermal Resistance (Total Package)	$\Theta_{JA}$		139	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MPQ3798		MPQ3799		UNITS
		MIN	MAX	MIN	MAX	
$I_{CBO}$	$V_{CB}=50\text{V}$		10		10	nA
$I_{EBO}$	$V_{EB}=3.0\text{V}$		20		20	nA
$BV_{CBO}$	$I_C=10\mu\text{A}$	60		60		V
$BV_{CEO}$	$I_C=10\text{mA}$	40		60		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		5.0		V
$V_{CE(SAT)}$	$I_C=100\mu\text{A}, I_B=10\mu\text{A}$		0.2		0.2	V
$V_{CE(SAT)}$	$I_C=1.0\text{mA}, I_B=100\mu\text{A}$		0.25		0.25	V
$V_{BE(SAT)}$	$I_C=100\mu\text{A}, I_B=10\mu\text{A}$		0.7		0.7	V
$V_{BE(SAT)}$	$I_C=1.0\text{mA}, I_B=100\mu\text{A}$		0.8		0.8	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$	100		225		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	150		300		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}$	150		300		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	125		250		
$f_T$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=100\text{MHz}$	60		60		MHz
$C_{ob}$	$V_{CB}=5.0\text{V}, I_E=0, f=1.0\text{MHz}$		4.0		4.0	pF
$C_{ib}$	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$		8.0		8.0	pF
NF	$V_{CE}=10\text{V}, I_C=100\mu\text{A}, R_S=3\text{k}\Omega,$ $f=10\text{Hz to } 15.7\text{kHz}$		2.5 TYP		1.5 TYP	dB

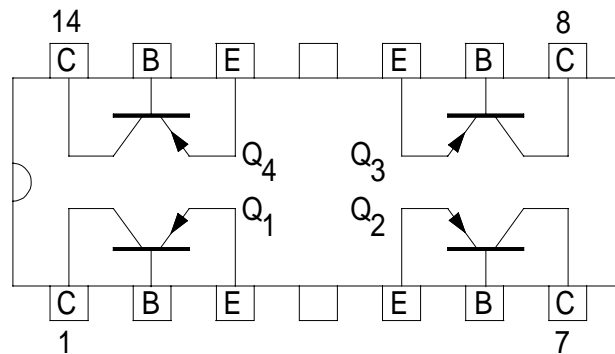
(SEE REVERSE SIDE)

TO-116 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

PIN CONFIGURATION



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## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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