

**MPQ7043**  
**SILICON**  
**NPN QUAD TRANSISTOR**



**TO-116 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MPQ7043 type is comprised of four independent silicon NPN transistors mounted in a 14-pin DIP, designed for general purpose amplifier and switching applications.

**MARKING: FULL PART NUMBER**

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

Collector-Base Voltage	
Collector-Emitter Voltage	
Emitter-Base Voltage	
Continuous Collector Current	
Power Dissipation (per transistor)	
Power Dissipation (total package)	
Operating and Storage Junction Temperature	

**SYMBOL**

$V_{CBO}$	250
$V_{CEO}$	250
$V_{EBO}$	5.0
$I_C$	500
$P_D$	1.25
$P_D$	3.2
$T_J, T_{stg}$	-65 to +150

**UNITS**

V
V
V
mA
W
W
$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS PER TRANSISTOR:** ( $T_A=25^\circ\text{C}$ )

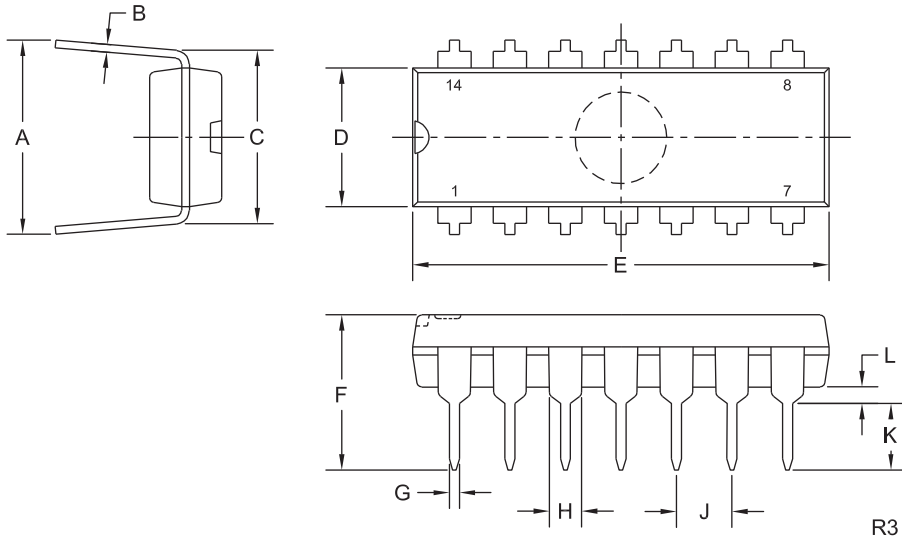
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=180\text{V}$		100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	250		V
$BV_{CEO}$	$I_C=1.0\text{mA}$	250		V
$BV_{EBO}$	$I_E=100\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.50	V
$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$		0.90	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	25		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=30\text{mA}$	40		
$f_T$	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	50		MHz
$C_{ob}$	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		5.0	pF
$C_{ib}$	$V_{EB}=3.0\text{V}, I_C=0, f=1.0\text{MHz}$		50	pF

R0 (10-March 2014)

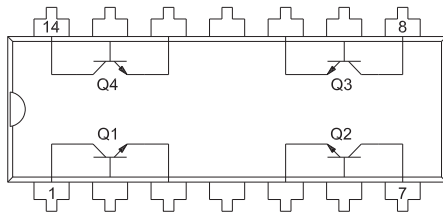
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TO-116 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

- |                  |                   |
|------------------|-------------------|
| 1) Collector Q1  | 8) Collector Q3   |
| 2) Base Q1       | 9) Base Q3        |
| 3) Emitter Q1    | 10) Emitter Q3    |
| 4) No Connection | 11) No Connection |
| 5) Emitter Q2    | 12) Emitter Q4    |
| 6) Base Q2       | 13) Base Q4       |
| 7) Collector Q2  | 14) Collector Q4  |

MARKING: FULL PART NUMBER

SYMBOL	DIMENSIONS			
	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	
J	0.100		2.5	
K	0.125	0.150	3.2	3.8
L	0.015	-	0.4	-

TO-116 (REV: R3)

R0 (10-March 2014)

## 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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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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