

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MPS404A

**PNP SILICON
CHOPPER TRANSISTOR**

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS404A type is an PNP silicon transistor manufactured by the epitaxial planar process, epoxy molded in a TO-92 package, designed for chopper applications.

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

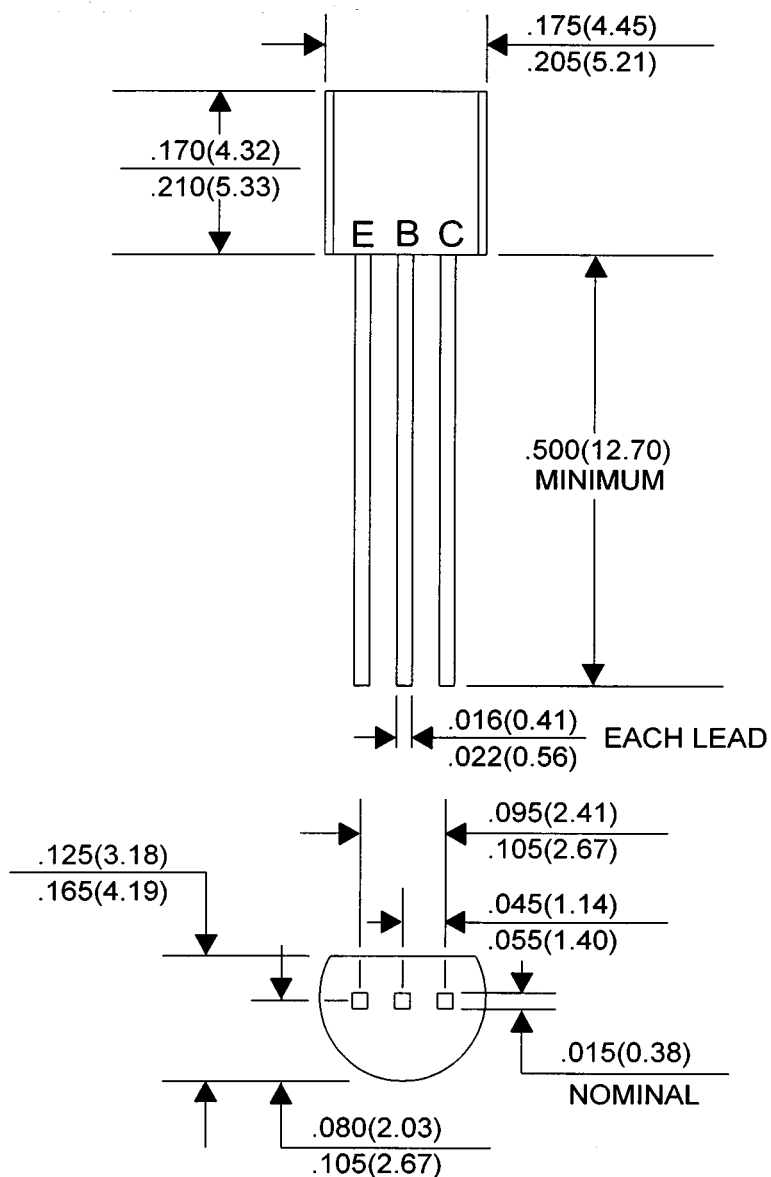
	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	35	V
Emitter-Base Voltage	V_{EBO}	25	V
Collector Current	I_C	150	mA
Power Dissipation	P_D	625	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	200	$^\circ\text{C/W}$

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
I_{CBO}	$V_{CB}=10\text{V}$			100	nA
I_{EBO}	$V_{EB}=10\text{V}$			100	nA
BV_{CBO}	$I_C=10\mu\text{A}$	40			V
BV_{CEO}	$I_C=10\text{mA}$	35			V
BV_{EBO}	$I_E=10\mu\text{A}$	25			V
$V_{CE(SAT)}$	$I_C=12\text{mA}, I_B=400\mu\text{A}$			0.15	V
$V_{CE(SAT)}$	$I_C=24\text{mA}, I_B=1.0\text{mA}$			0.20	V
$V_{BE(SAT)}$	$I_C=12\text{mA}, I_B=400\mu\text{A}$			0.85	V
$V_{BE(SAT)}$	$I_C=24\text{mA}, I_B=1.0\text{mA}$			1.00	V
h_{FE}	$V_{CE}=0.15\text{V}, I_C=12\text{mA}$	100		400	
C_{ob}	$V_{CB}=6.0\text{V}, I_E=0, f=1.0\text{MHz}$		40		pF
t_d	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=1.0\text{mA}$		150		ns
t_r	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=1.0\text{mA}$		400		ns
t_s	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=I_{B2}=1.0\text{mA}$		3.0		μs
t_f	$V_{CC}=10\text{V}, I_C=10\text{mA}, I_{B1}=I_{B2}=1.0\text{mA}$		750		ns

(See Reverse Side)

R1

JEDEC TO-92 CASE - MECHANICAL OUTLINE

All Dimensions in Inches (mm).

CentralTM
Semiconductor Corp.

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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