

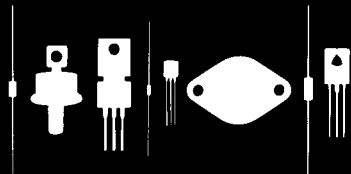
Central Semiconductor Corp.  
 145 Adams Avenue  
 Hauppauge, New York 11788

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**MPS8097**

**NPN SILICON TRANSISTOR**

**JEDEC TO-92 CASE (EBC)**

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS8097 is an Epoxy Molded Silicon NPN Transistor designed for low noise audio amplifier applications.

MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	V <sub>CB0</sub>	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	6.0	V
Collector Current	I <sub>C</sub>	200	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	200	°C/W

ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I <sub>CB0</sub>	V <sub>CB</sub> = 60V		10	μA
I <sub>CB0</sub>	V <sub>CB</sub> = 40V		30	nA
I <sub>EBO</sub>	V <sub>BE</sub> = 6.0V		20	nA
BV <sub>CEO</sub>	I <sub>C</sub> = 10mA	40		V
V <sub>BE(ON)</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 100μA	0.45	0.65	V
h <sub>FE</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 100μA	250	700	
h <sub>fe</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 100μA, f = 1.0kHz	250	800	
C <sub>ob</sub>	V <sub>CB</sub> = 5.0V, I <sub>E</sub> = 0, f = 1.0MHz	1.0	4.0	pF
C <sub>eb</sub>	V <sub>BE</sub> = 0.5V, I <sub>C</sub> = 0, f = 1.0MHz		10	pF
NF	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 100μA, R <sub>S</sub> = 10kΩ, f = 10Hz to 15.7kHz		2.0	dB
e <sub>n</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 100μA, R <sub>S</sub> = 10kΩ, f = 100Hz, BW = 1.0Hz		32	nV/√Hz

**Central**<sup>™</sup>  
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