

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

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Manufacturers of World Class Discrete Semiconductors

MPS8598  
MPS8599

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE (EBC)

## DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS8598, MPS8599 types are Epoxy Molded Silicon PNP Transistors designed for general purpose audio amplifier applications and complementary circuits. The NPN complementary types are MPS8098 and MPS8099.

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

	SYMBOL	MPS8598	MPS8599	UNITS
Collector-Base Voltage	V <sub>CBO</sub>	60	80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	60	80	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	5.0	V
Collector Current	I <sub>C</sub>	500	500	mA
Power Dissipation	P <sub>D</sub>	625	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)

SYMBOL	TEST CONDITIONS	MPS8598		MPS8599		UNITS
		MIN	MAX	MIN	MAX	
I <sub>CBO</sub>	V <sub>CB</sub> =Rated V <sub>CBO</sub>		0.1		0.1	μA
I <sub>CEO</sub>	V <sub>CE</sub> =60V		0.1		0.1	μA
I <sub>EBO</sub>	V <sub>BE</sub> =4.0V		0.1		0.1	μA
BV <sub>CBO</sub>	I <sub>C</sub> =100μA	60		80		V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	60		80		V
BV <sub>EBO</sub>	I <sub>C</sub> =10μA	5.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5.0mA		0.4		0.4	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.3		0.3	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	0.5	0.7	-	-	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA	-	-	0.6	0.8	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	100	300	100	300	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA	100		100		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100mA	75		75		
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=100MHz	150		150		MHz
C <sub>ob</sub>	V <sub>CB</sub> =5.0V, I <sub>E</sub> =0, f=1.0MHz		8.0		8.0	pF
C <sub>ib</sub>	V <sub>CB</sub> =0.5V, I <sub>C</sub> =0, f=1.0MHz		30		30	pF