

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

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Manufacturers of World Class Discrete Semiconductors

MPS6560      MPS6561      NPN  
MPS6562      MPS6563      PNP

COMPLEMENTARY SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

## DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS6560 series types are complementary silicon epitaxial planar transistors designed for general purpose amplifier and switching applications.

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

	SYMBOL	MPS6560 MPS6562	MPS6561 MPS6563	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	25	20	V
Collector-Emitter Voltage	V <sub>CE0</sub>	25	20	V
Emitter-Base Voltage	V <sub>EB0</sub>		5.0	V
Collector Current	I <sub>C</sub>		600	mA
Power Dissipation	P <sub>D</sub>		625	mW
Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>		1.5	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +150		°C
Thermal Resistance	θ <sub>JA</sub>		0.20	°C/W
Thermal Resistance	θ <sub>JC</sub>		0.83	°C/W

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

SYMBOL	TEST CONDITIONS	MPS6560 MPS6562		MPS6561 MPS6563		UNIT
		MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> =20V		100		100	nA
I <sub>CE0</sub>	V <sub>CE</sub> =Rated V <sub>CE0</sub>		100		100	nA
I <sub>EB0</sub>	V <sub>EB</sub> =4.0V		100		100	nA
BV <sub>CB0</sub>	I <sub>C</sub> =100μA	20		25		V
BV <sub>CE0</sub>	I <sub>C</sub> =10mA	20		25		V
BV <sub>EB0</sub>	I <sub>E</sub> =100μA	5.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =350mA, I <sub>B</sub> =35mA		-		0.5	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA		0.5		-	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =350mA		-		1.2	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =500mA		1.2		-	V
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =10mA	35	-	35	-	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =100mA	50	-	50	-	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =350mA	-	-	50	200	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =500mA	50	200	-	-	
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=30MHz	60		60		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1.0MHz		30		30	pF