

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

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Manufacturers of World Class Discrete Semiconductors

MPS6522  
MPS6523

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS6522, MPS6523 types are PNP Silicon Epitaxial Transistors designed for complementary amplifier applications requiring low noise and high DC Current gain. The NPN complementary types are MPS6520, MPS6521 respectively.

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

	SYMBOL		UNIT
Collector-Base Voltage	V <sub>CB0</sub>	25	V
Collector-Emitter Voltage	V <sub>CEO</sub>	25	V
Emitter-Base Voltage	V <sub>EBO</sub>	4.0	V
Collector Current	I <sub>C</sub>	100	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 TO +150	°C

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

SYMBOL	TEST CONDITIONS	MPS6522		MPS6523		UNIT
		MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> =20V		0.05		0.05	μA
I <sub>CB0</sub>	V <sub>CB</sub> =20V, T <sub>A</sub> =60°C		1.0		1.0	μA
BV <sub>CEO</sub>	I <sub>C</sub> =500μA	25		25		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	4.0		4.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5.0mA		0.5		0.5	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =100μA	100	150			
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =2.0mA	200	400	300	600	
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =2.0mA	250TYP		250TYP		MHz
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	350TYP		350TYP		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=100kHz		3.5		3.5	pF
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10μA, R <sub>s</sub> =10kΩ, BW=15.7 kHz, 3.0dB points @ 10Hz and 10kHz		3.0		3.0	dB