

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

MPS6520
MPS6521

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE

DESCRIPTION

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

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CE0}	25	V
Emitter-Base Voltage	V _{EBO}	4.0	V
Collector Current	I _C	100	mA
Power Dissipation	P _D	625	mW
Operating and Storage Temperature	T _J , T _{stg}	-65 TO +150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MPS6520		MPS6521		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =30V		0.05		0.05	μA
I _{CB0}	V _{CB} =30V, T _A =60°C		1.0		1.0	μA
BV _{CE0}	I _C =500μA	25		25		V
BV _{EBO}	I _E =10μA	4.0		4.0		V
V _{CE} (SAT)	I _C =50mA, I _B =5.0mA		0.5		0.5	V
h _{FE}	V _{CE} =10V, I _C =100μA	100		150		
h _{FE}	V _{CE} =10V, I _C =2.0mA	200	400	300	600	
f _T	V _{CE} =10V, I _C =2.0mA	300TYP		300TYP		MHz
f _T	V _{CE} =10V, I _C =10mA	400TYP		400TYP		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz		3.5		3.5	pF
NF	V _{CE} =5.0V, I _C =10μA, R _s =10kΩ, B _w =15.7kHz, 3.0dB points @ 10Hz and 10 kHz		3.0		3.0	dB