

CentralTM 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_A=25°C unless otherwise noted)

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

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

SYMBOL	TEST CONDITIONS	MPS6560 MPS6562		MPS6561 MPS6563		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =20V		100		100	nA
I _{CE0}	V _{CE} =Rated V _{CE0}		100		100	nA
I _{EBO}	V _{EB} =4.0V		100		100	nA
BV _{CB0}	I _C =100μA	20		25		V
BV _{CE0}	I _C =10mA	20		25		V
BV _{EBO}	I _E =100μA	5.0		5.0		V
V _{CE(SAT)}	I _C =350mA, I _B =35mA		-		0.5	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		0.5		-	V
V _{BE(ON)}	V _{CE} =1.0V, I _C =350mA		-		1.2	V
V _{BE(ON)}	V _{CE} =1.0V, I _C =500mA		1.2		-	V
h _{FE}	V _{CE} =1.0V, I _C =10mA	35	-	35	-	
h _{FE}	V _{CE} =1.0V, I _C =100mA	50	-	50	-	
h _{FE}	V _{CE} =1.0V, I _C =350mA	-	-	50	200	
h _{FE}	V _{CE} =1.0V, I _C =500mA	50	200	-	-	
f _T	V _{CE} =10V, I _C =10mA, f=30MHz	60		60		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		30		30	pF