

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

NPN PNP
MPS6601 MPS6651
MPS6602 MPS6652

COMPLEMENTARY HIGH CURRENT
AMPLIFIER TRANSISTORS

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS6601, MPS6602, MPS6651, and MPS6652 types are Silicon Complementary Transistors designed for high current amplifier applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	MPS6601 MPS6651	MPS6602 MPS6652	UNITS
Collector-Base Voltage	V _{CBO}	25	40	V
Collector-Emitter Voltage	V _{CEO}	25	40	V
Emitter-Base Voltage	V _{EBO}	4.0		V
Collector Current	I _C	1.0		A
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}	200		°C/W
Thermal Resistance	Θ _{JC}	83.3		°C/W

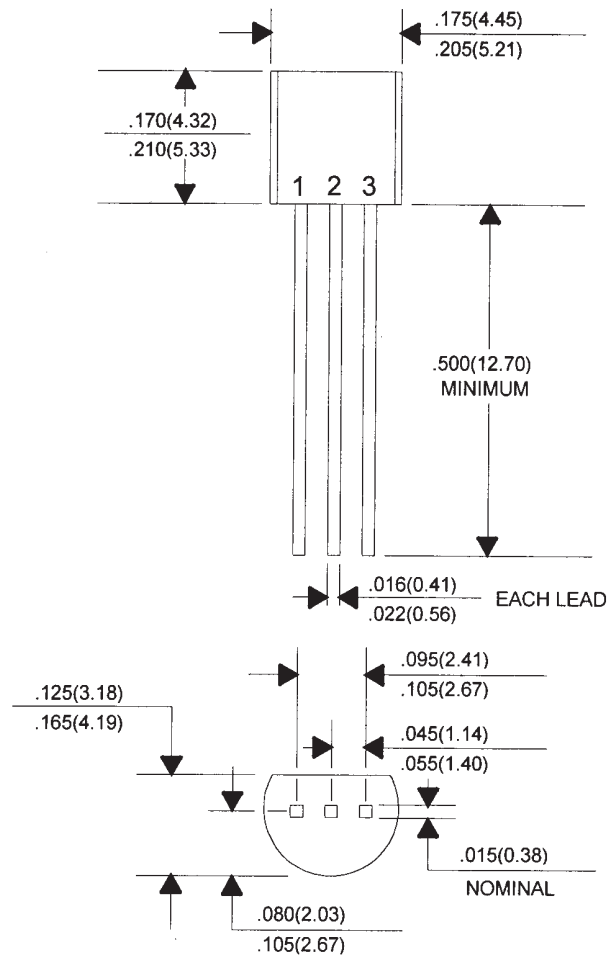
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MPS6601 MPS6651		MPS6602 MPS6652		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =25V		100			nA
I _{CBO}	V _{CB} =30V				100	nA
I _{CES}	V _{CE} =25V		100			nA
I _{CES}	V _{CE} =30V				100	nA
BV _{CBO}	I _C =100μA	25		40		V
BV _{CEO}	I _C =1.0mA	25		40		V
BV _{EBO}	I _E =10μA	4.0		4.0		V
V _{CE(SAT)}	I _C =1.0A, I _B =100mA		0.6		0.6	V
V _{BE(ON)}	V _{CE} =1.0V, I _C =500mA		1.2		1.2	V
h _{FE}	V _{CE} =1.0V, I _C =100mA	50		50		
h _{FE}	V _{CE} =1.0V, I _C =500mA	50		50		
h _{FE}	V _{CE} =1.0V, I _C =1.0A	30		30		
f _T	V _{CE} =10V, I _C =50mA, f=100MHz	100		100		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		50		50	pF
t _d	V _{CC} =40V, I _C =500mA, I _{B1} =50mA		25		25	ns
t _r	V _{CC} =40V, I _C =500mA, I _{B1} =50mA		30		30	ns
t _s	V _{CC} =40V, I _C =500mA, I _{B1} =50mA		250		250	ns
t _f	V _{CC} =40V, I _C =500mA, I _{B1} =50mA		50		50	ns

(See Reverse Side)

R1

JEDEC TO-92 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

- 1) Emitter
- 2) Base
- 3) Collector

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