

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

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 _{CB0}	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

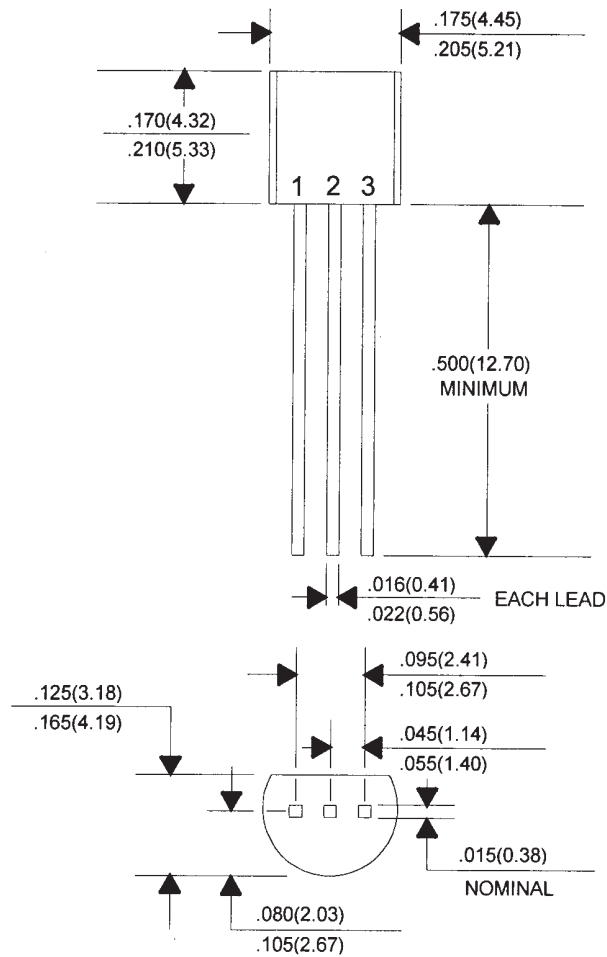
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

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 _{CB0}	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

CentralTM

Semiconductor Corp.

145 Adams Avenue
Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms