

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centrasemi.com

NPN	PNP
MPS6512	MPS6516
MPS6513	MPS6517
MPS6514	MPS6518
MPS6515	MPS6519

**COMPLEMENTARY
SILICON TRANSISTORS**

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS6512 Series (NPN) and MPS6516 Series (PNP) types are molded Epoxy Silicon Small Signal Transistors designed for general-purpose amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

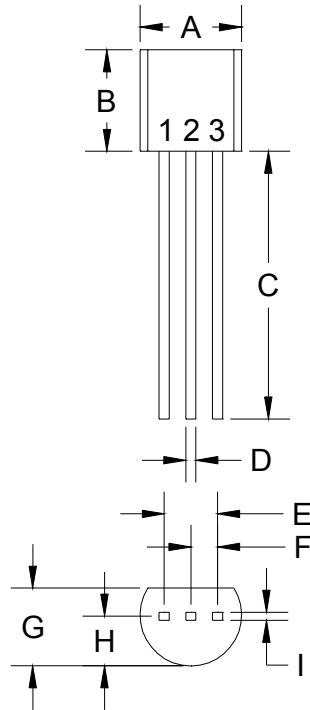
	SYMBOL	MPS6512 MPS6513	MPS6514 MPS6515	MPS6516 MPS6517 MPS6518	MPS6519	UNITS
Collector-Base Voltage	V _{CBO}	40	40	40	25	V
Collector-Emitter Voltage	V _{CEO}	30	25	40	25	V
Emitter-Base Voltage	V _{EBO}		4.0			V
Collector Current	I _C		100			mA
Power Dissipation	P _D		625			mW
Power Dissipation (T _C =25°C)	P _D		1.5			W
Operating and Storage Junction Temperature	T _J , T _{stg}		-65 to +150			°C
Thermal Resistance	θ _{JC}		83.3			°C/W
Thermal Resistance	θ _{JA}		200			°C/W

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

SYMBOL	TEST CONDITIONS	MPS6512 MPS6513 MIN MAX	MPS6514 MPS6515 MIN MAX	MPS6516 MPS6517 MPS6518 MIN MAX	MPS6519 MIN MAX	UNITS
I _{CBO}	V _{CB} =30V	50	50	50	-	nA
I _{CBO}	V _{CB} =20V	-	-	-	50	nA
BV _{CEO}	I _C =0.5mA	30	25	40	25	V
BV _{EBO}	I _E =10μA	4.0	4.0	4.0	4.0	V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA	0.5	0.5	0.5	0.5	V
C _{ob}	V _{CB} =10V, I _E =0, f=100kHz	3.5	3.5	4.0	4.0	pF
SYMBOL	TEST CONDITIONS	MPS6512 MPS6516 MIN MAX	MPS6513 MPS6517 MIN MAX	MPS6514 MPS6518 MIN MAX	MPS6515 MPS6519 MIN MAX	
h _{FE}	V _{CE} =10V, I _C =2.0mA	50 100	90 180	150 300	250 500	
h _{FE}	V _{CE} =10V, I _C =100mA	30	60	90	150	

(Continued)

R0

TO-92 PACKAGE - MECHANICAL OUTLINE

R1

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE

1. Emitter
2. Base
3. Collector

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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

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