

MPS8098
MPS8099

NPN SILICON TRANSISTOR



TO-92 CASE

Central
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPS8098 and MPS8099 types are NPN silicon transistors designed for general purpose audio amplifier applications.

PNP complementary types are MPS8598 and MPS8599.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	MPS8098	MPS8099	UNITS
V_{CB0}	60	80	V
V_{CE0}	60	80	V
V_{EBO}	6.0		V
I_C	500		mA
P_D	625		mW
T_J, T_{stg}	-65 to +150		$^\circ\text{C}$
θ_{JA}	200		$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$)

SYMBOL	TEST CONDITIONS	MPS8098		MPS8099		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=\text{Rated } V_{CB0}$	-	0.1	-	0.1	μA
I_{CEO}	$V_{CE}=60\text{V}$	-	0.1	-	0.1	μA
I_{EBO}	$V_{EB}=6.0\text{V}$	-	0.1	-	0.1	μA
BV_{CBO}	$I_C=100\mu\text{A}$	60	-	80	-	V
BV_{CE0}	$I_C=10\text{mA}$	60	-	80	-	V
BV_{EBO}	$I_E=10\mu\text{A}$	6.0	-	6.0	-	V
$V_{CE(\text{SAT})}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$	-	0.4	-	0.4	V
$V_{CE(\text{SAT})}$	$I_C=100\text{mA}, I_B=10\text{mA}$	-	0.3	-	0.3	V
$V_{BE(\text{ON})}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	0.5	0.7	-	-	V
$V_{BE(\text{ON})}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	-	-	0.6	0.8	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	100	300	100	300	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	100	-	100	-	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$	75	-	75	-	
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	150	-	150	-	MHz
C_{ob}	$V_{CB}=5.0\text{V}, I_E=0, f=1.0\text{MHz}$	-	6.0	-	6.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$	-	25	-	25	pF

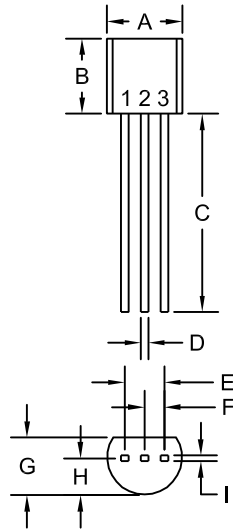
R2 (27-August 2012)

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TO-92 CASE - 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

MARKING:
FULL PART NUMBER

R2 (27-August 2012)

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

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