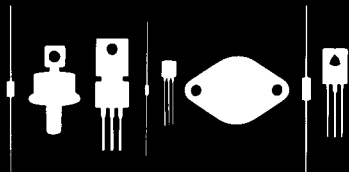


Central
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 145 Adams Avenue
 Hauppauge, New York 11788



MPS8097

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS8097 is an Epoxy Molded Silicon NPN Transistor designed for low noise audio amplifier applications.

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

	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	200	mA
Power Dissipation	P_D	625	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	200	$^{\circ}\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I_{CB0}	$V_{CB} = 60\text{V}$		10	μA
I_{CB0}	$V_{CB} = 40\text{V}$		30	nA
I_{EBO}	$V_{BE} = 6.0\text{V}$		20	nA
BV_{CEO}	$I_C = 10\text{mA}$	40		V
$V_{BE(ON)}$	$V_{CE} = 5.0\text{V}, I_C = 100\mu\text{A}$	0.45	0.65	V
h_{FE}	$V_{CE} = 5.0\text{V}, I_C = 100\mu\text{A}$	250	700	
h_{fe}	$V_{CE} = 5.0\text{V}, I_C = 100\mu\text{A}, f = 1.0\text{kHz}$	250	800	
C_{ob}	$V_{CB} = 5.0\text{V}, I_E = 0, f = 1.0\text{MHz}$	1.0	4.0	pF
C_{eb}	$V_{BE} = 0.5\text{V}, I_C = 0, f = 1.0\text{MHz}$		10	pF
NF	$V_{CE} = 5.0\text{V}, I_C = 100\mu\text{A}, R_S = 10\text{k}\Omega, f = 10\text{Hz to } 15.7\text{kHz}$		2.0	dB
e_n	$V_{CE} = 5.0\text{V}, I_C = 100\mu\text{A}, R_S = 10\text{k}\Omega, f = 100\text{Hz}, \text{BW} = 1.0\text{Hz}$		32	$\text{nV}/\sqrt{\text{Hz}}$

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- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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