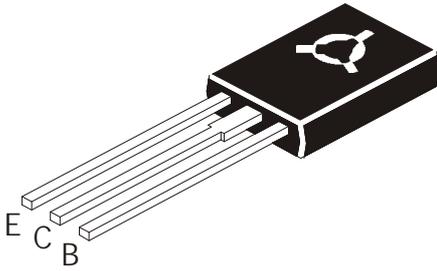


## NPN EPITAXIAL SILICON POWER TRANSISTOR

CSD882H-P (9HY)



TO126  
Plastic Package

Marking:- SD  
882H-P  
+DATE CODE

### Complementary CSB772

### Audio Frequency Power Amplifier and Low Speed Switching Applications

#### ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	60	V
Collector Emitter Voltage	$V_{CEO}$	30	V
Emitter Base Voltage	$V_{EBO}$	5.0	V
Collector Current (DC)	$I_C$	3.0	A
Collector Current (Pulse)	$I_C$	7.0	A
Base Current (DC)	$I_B$	0.6	A
Total Power Dissipation @ $T_a=25^\circ\text{C}$	$P_D$	1.0	W
Total Power Dissipation @ $T_c=25^\circ\text{C}$	$P_D$	10	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to +150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Cut Off Current	$I_{CBO}$	$I_E=0, V_{CB}=60\text{V}$			1.0	$\mu\text{A}$
Emitter Cut Off Current	$I_{EBO}$	$I_C=0, V_{EB}=3\text{V}$			1.0	$\mu\text{A}$
Collector Emitter Saturation Voltage	$*V_{CE(sat)}$	$I_C=2.0\text{A}, I_B=0.2\text{A}$			0.5	V
Base Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=2.0\text{A}, I_B=0.2\text{A}$			2.0	V
DC Current Gain	$*h_{FE}$	$I_C=20\text{mA}, V_{CE}=2\text{V}$	30			
	$**h_{FE}$	$I_C=1\text{A}, V_{CE}=2\text{V}$	60		400	
Output Capacitance	$C_o$	$I_E=0, V_{CB}=10\text{V}, f=1\text{MHz}$		45		pF
Current Gain Bandwidth Product	$f_T$	$I_C=0.1\text{A}, V_{CE}=5\text{V}$		90		MHz

<b>**h<sub>FE</sub> Classification</b>	<b>R 60 - 120</b>	<b>Q 100 - 200</b>	<b>P 160 - 320</b>	<b>E 200 - 400</b>
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\*Pulse test: Pulse Width  $\leq 300\text{ms}$ , Duty Cycle  $\leq 2\%$

CSD882H-P Rev\_2 240508E



**Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

**Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s). CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



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