

Features

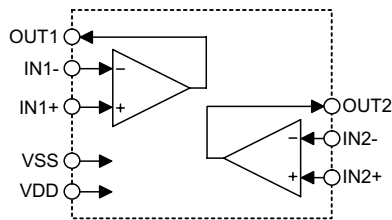
- Single power supply voltage: 5V
- Low power consumption
- Low distortion
- Low clock Jitter sensitivity
- High SNR ratio range
- Wide temperature range
- 8-pin SOP package

General Description

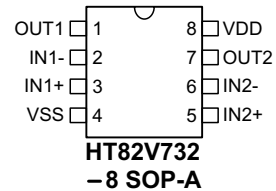
HT82V732 is a class AB stereo earphone driver designed for portable digital audio application. It provides 8-SOP package. Pin assignments and application circuit is compatible with TDA1308 which is suitable for ef-

fective low cost applications. HT82V732 is ideal for portable digital audio equipment, CD ROM/DVD ROM and DISCMAN system.

Block Diagram



Pin Assignment



Pin Description

Pin No.	Pin Name	I/O	Description
1	OUT1	O	Output
2	IN1-	I	Inverting input
3	IN1+	I	Non-inverting input
4	VSS	—	Negative power supply, ground
5	IN2+	I	Non-inverting input
6	IN2-	I	Inverting input
7	OUT2	O	Output
8	VDD	—	Positive power supply

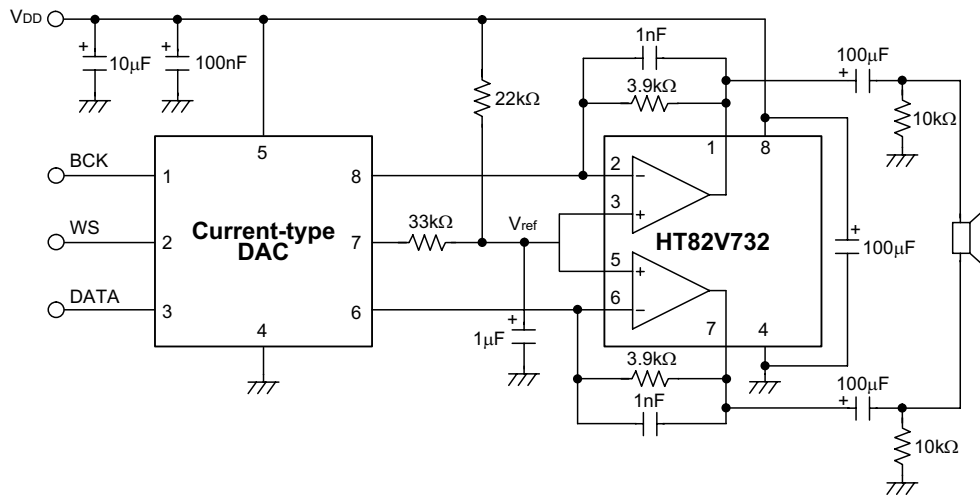
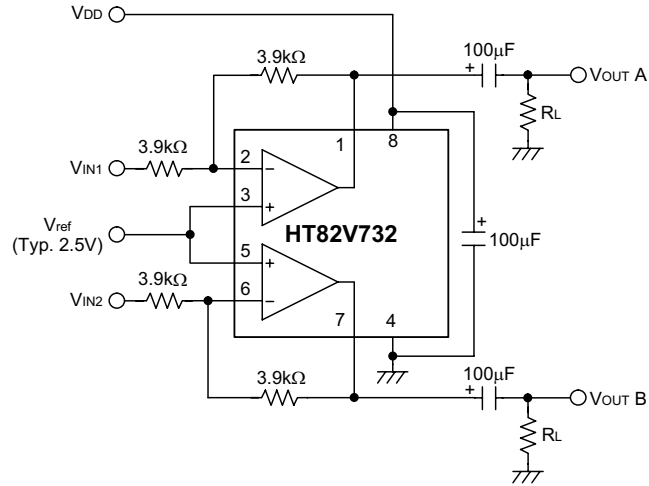
Electrical Characteristics
 $V_{SS}=0V$; $f_i=1kHz$; $R_L=32\Omega$

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit	
		V_{DD}	Conditions					
Supplies								
V_{DD}	Supply Voltage	5V	—	—	—	—	V	
	Single			3.0	5.0	6.0		
	Dual			1.5	2.5	3		
V_{SS}	Negative Supply Voltage	5V	—	-1.5	-2.5	-3	V	
I_{DD}	Supply Current	5V	No load	—	3	5	mA	
P_{tot}	Total Power Dissipation	5V	No load	—	15	25	mW	
DC Characteristics								
$V_{I(OS)}$	Input Offset Voltage	5V	—	—	10	—	mV	
I_{bias}	Input Bias Current	5V	—	—	10	—	pA	
V_{CM}	Common Mode Voltage	5V	—	0	—	3.5	V	
G_V	Open-loop Voltage Gain	5V	$R_L=5k\Omega$	—	70	—	dB	
I_O	Maximum Output Current	5V	$(THD+N)/S < 0.1\%$	—	60	—	mA	
R_O	Output Resistance	5V	—	—	0.25	—	Ω	
V_O	Output Voltage swing	5V	—	$R_L=32\Omega$ *	0.75	—	4.25	V
				$R_L=16\Omega$ *	1.5	—	3.5	
				$R_L=5k\Omega$ *	0.1	—	4.9	
PSRR	Power Supply Rejection Ratio	5V	$F_i=100Hz$; $V_{ripple(p-p)}=100mV$	—	90	—	dB	
α_{CS}	Channel Separation	5V	—	—	70	—	dB	
C_L	Load Capacitance	5V	—	—	—	200	pF	
AC Characteristics								
$(THD+N)/S$	Total Harmonic Distortion Plus Noise-to-signal Ratio	5V	$V_{O(P-P)}=3.5V$ **	—	-70	—	dB	
				—	0.03	—	%	
S/N	Signal-to-noise Ratio	5V	—	—	100	—	dB	
f_G	Unity Gain Frequency	5V	Open-loop; $R_L=5k\Omega$	—	5.5	—	MHz	
P_O	Maximum Output Power	5V	$(THD+N)/S < 0.1\%$	—	60	—	mW	
C_i	Input Capacitance	5V	—	—	3	—	pF	
SR	Slew Rate	5V	Unity gain inverting	—	5	—	V/ μs	
B	Power Bandwidth	5V	Unity gain inverting	—	20	—	kHz	

Note: *** Values are proportional to V_{DD} ; $(THD+N)/S < 0.1\%$

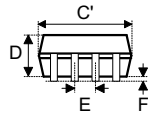
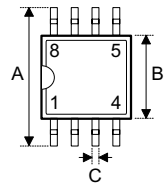
**** $V_{DD}=5V$, $V_{O(P-P)}=3.5V$ (at odB)

Application Circuits



Package Information

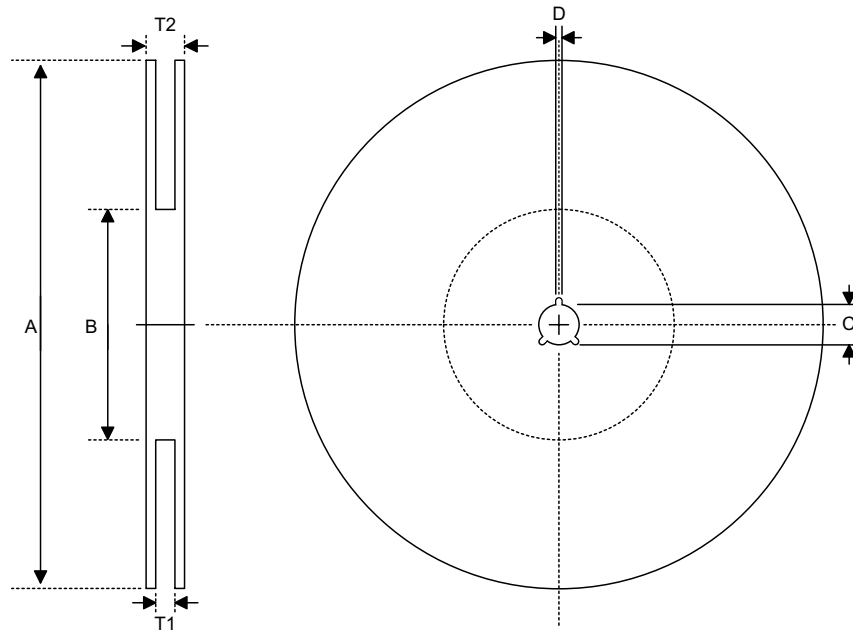
8-pin SOP (150mil) outline dimensions



Symbol	Dimensions in mil		
	Min.	Nom.	Max.
A	228	—	244
B	149	—	157
C	14	—	20
C'	189	—	197
D	53	—	69
E	—	50	—
F	4	—	10
G	22	—	28
H	4	—	12
α	0°	—	10°

Product Tape and Reel Specifications

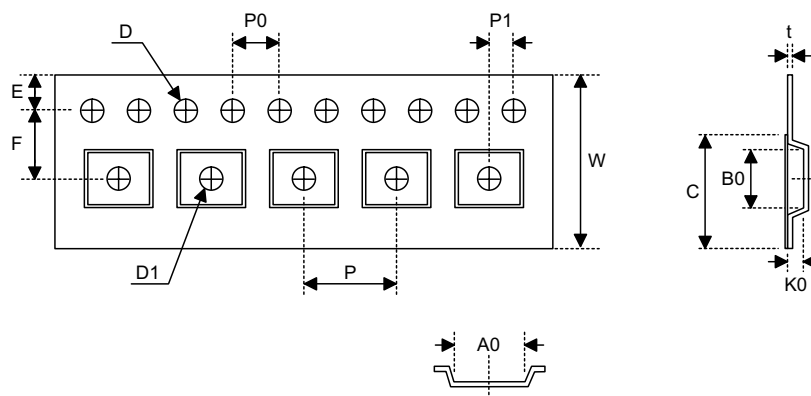
Reel dimensions



SOP 8N

Symbol	Description	Dimensions in mm
A	Reel Outer Diameter	330±1.0
B	Reel Inner Diameter	62±1.5
C	Spindle Hole Diameter	13.0+0.5 -0.2
D	Key Slit Width	2.0±0.15
T1	Space Between Flange	12.8+0.3 -0.2
T2	Reel Thickness	18.2±0.2

Carrier tape dimensions



SOP 8N

Symbol	Description	Dimensions in mm
W	Carrier Tape Width	12.0+0.3 -0.1
P	Cavity Pitch	8.0±0.1
E	Perforation Position	1.75±0.1
F	Cavity to Perforation (Width Direction)	5.5±0.1
D	Perforation Diameter	1.55±0.1
D1	Cavity Hole Diameter	1.5+0.25
P0	Perforation Pitch	4.0±0.1
P1	Cavity to Perforation (Length Direction)	2.0±0.1
A0	Cavity Length	6.4±0.1
B0	Cavity Width	5.20±0.1
K0	Cavity Depth	2.1±0.1
t	Carrier Tape Thickness	0.3±0.05
C	Cover Tape Width	9.3

Holtek Semiconductor Inc. (Headquarters)

No.3, Creation Rd. II, Science Park, Hsinchu, Taiwan
Tel: 886-3-563-1999
Fax: 886-3-563-1189
<http://www.holtek.com.tw>

Holtek Semiconductor Inc. (Taipei Sales Office)

4F-2, No. 3-2, YuanQu St., Nankang Software Park, Taipei 115, Taiwan
Tel: 886-2-2655-7070
Fax: 886-2-2655-7373
Fax: 886-2-2655-7383 (International sales hotline)

Holtek Semiconductor Inc. (Shanghai Sales Office)

7th Floor, Building 2, No.889, Yi Shan Rd., Shanghai, China 200233
Tel: 021-6485-5560
Fax: 021-6485-0313
<http://www.holtek.com.cn>

Holtek Semiconductor Inc. (Shenzhen Sales Office)

43F, SEG Plaza, Shen Nan Zhong Road, Shenzhen, China 518031
Tel: 0755-8346-5589
Fax: 0755-8346-5590
ISDN: 0755-8346-5591

Holtek Semiconductor Inc. (Beijing Sales Office)

Suite 1721, Jinyu Tower, A129 West Xuan Wu Men Street, Xicheng District, Beijing, China 100031
Tel: 010-6641-0030, 6641-7751, 6641-7752
Fax: 010-6641-0125

Holmate Semiconductor, Inc. (North America Sales Office)

46712 Fremont Blvd., Fremont, CA 94538
Tel: 510-252-9880
Fax: 510-252-9885
<http://www.holmate.com>

Copyright © 2002 by HOLTEK SEMICONDUCTOR INC.

The information appearing in this Data Sheet is believed to be accurate at the time of publication. However, Holtek assumes no responsibility arising from the use of the specifications described. The applications mentioned herein are used solely for the purpose of illustration and Holtek makes no warranty or representation that such applications will be suitable without further modification, nor recommends the use of its products for application that may present a risk to human life due to malfunction or otherwise. Holtek's products are not authorized for use as critical components in life support devices or systems. Holtek reserves the right to alter its products without prior notification. For the most up-to-date information, please visit our web site at <http://www.holtek.com.tw>.