

### Features

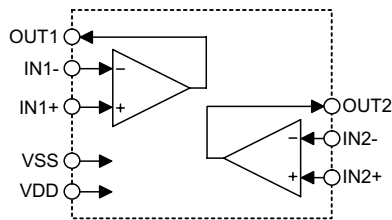
- Single power supply voltage: 5V
- Low power consumption
- Low distortion
- Low clock Jitter sensitivity
- High SNR ratio range
- Wide temperature range
- 8-pin SOP package

### General Description

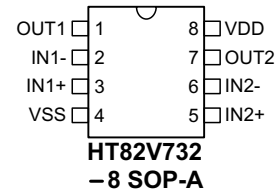
HT82V732 is a class AB stereo earphone driver designed for portable digital audio application. It provides 8-SOP package. Pin assignments and application circuit is compatible with TDA1308 which is suitable for ef-

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

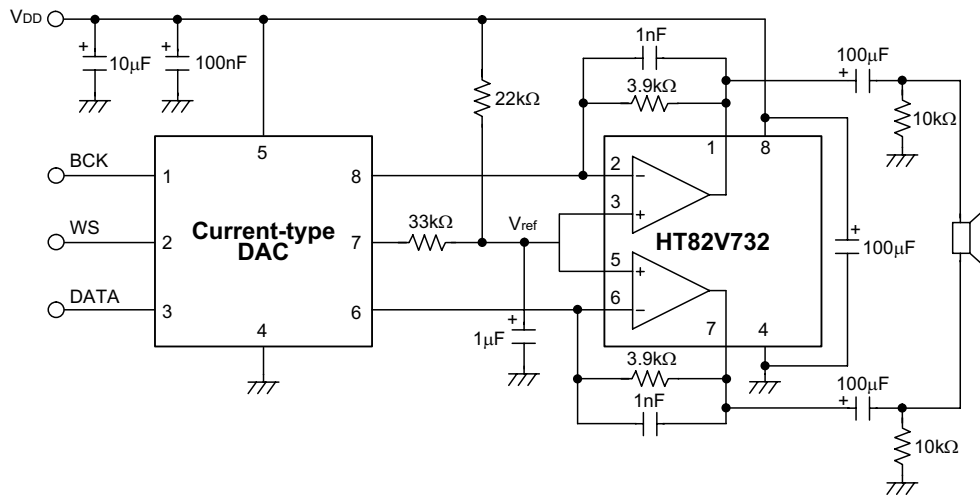
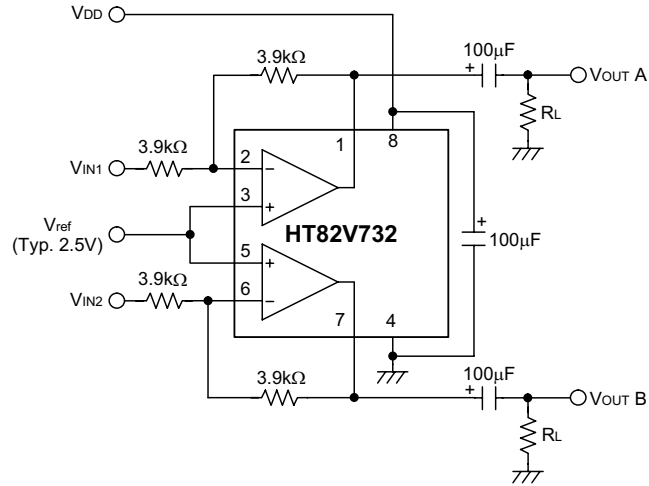
**Electrical Characteristics**
 $V_{SS}=0V$ ;  $f_i=1kHz$ ;  $R_L=32\Omega$ 

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit	
		$V_{DD}$	Conditions					
<b>Supplies</b>								
$V_{DD}$	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	
<b>DC Characteristics</b>								
$V_{I(OS)}$	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	—	$\Omega$	
$V_O$	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	
$\alpha_{CS}$	Channel Separation	5V	—	—	70	—	dB	
$C_L$	Load Capacitance	5V	—	—	—	200	pF	
<b>AC Characteristics</b>								
(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/ $\mu s$	
B	Power Bandwidth	5V	Unity gain inverting	—	20	—	kHz	

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

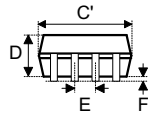
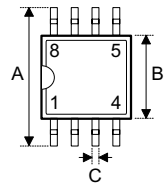
\*\*\*\*  $V_{DD}=5V$ ,  $V_{O(P-P)}=3.5V$  (at odB)

Application Circuits



**Package Information**

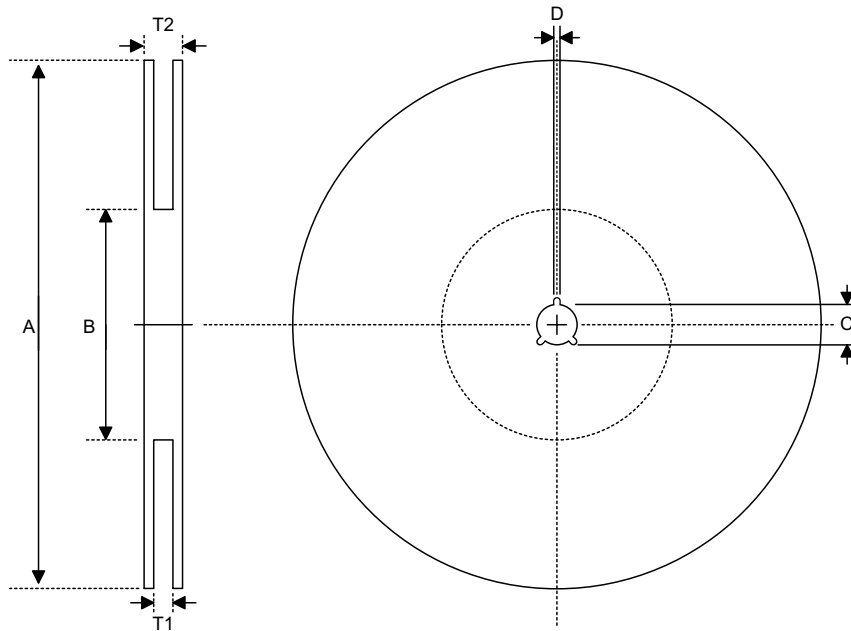
8-pin SOP (150mil) outline dimensions



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
$\alpha$	0°	—	10°

**Product Tape and Reel Specifications**

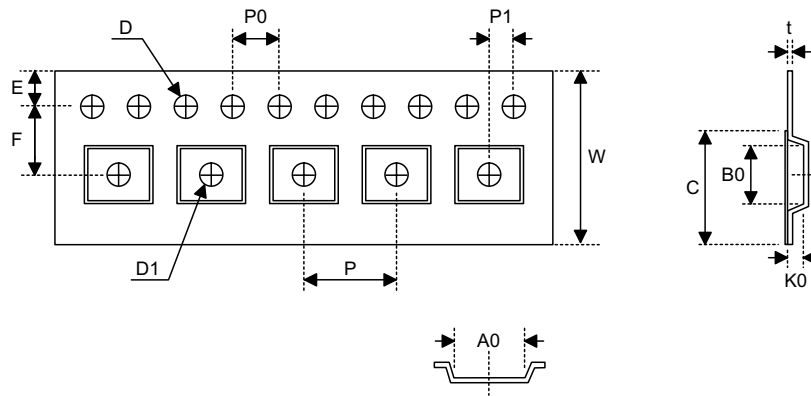
**Reel dimensions**



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

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