

Audio driver IC for mobile phones

BH7826FVM

BH7826FVM is an audio driver IC developed for mobile audio products such as mobile phones. Low voltage operation, and low power consumption can be realized. Differential input is available for this IC.

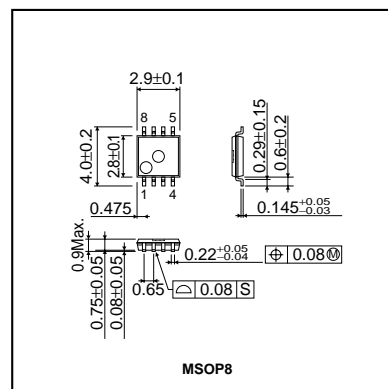
●Applications

Mobile phones, PDA, Notebook PC, DSC, DVC

●Features

- 1) BTL monaural power amplifier.
- 2) High power 500mW / 8Ω / BTL output.
- 3) Wide supply voltage range.
- 4) For active / shutdown mode.
- 5) Built-in anti-pop circuit / thermal shutdown circuit

●External dimensions (Units : mm)



●Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Applied voltage	V _{CC} MAX.	6.0	V
Power dissipation	P _d	470 ^{*1}	mW
Operating temperature range	T _{opr}	-30~+85 ^{*2}	°C
Storage temperature range	T _{stg}	-55~+125	°C

*1 Derating 4.7mW/°C for operation above Ta=25°C. 70mm×70mm×1.6mm glass epoxy mounting.

*2 TOPR=70-85°C is basic operation range, characteristic and rated output are not guaranteed. In this range if the input signal is exceeded, TSD (Thermal Shutdown) may operate.

●Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating supply voltage range	V _{CCS}	2.6	3.6	5.5	V

Communication ICs

●Electrical characteristics (Unless otherwise noted, $T_a=27^\circ\text{C}$, $V_{CC}=-3.6\text{V}$, $f=1\text{kHz}$, $R_L=8\Omega$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current 1	I_{CC1}	-	3.5	7	mA	No signal,Active MODE
Circuit current 2	I_{CC2}	-	0	2	μA	No signal,Suspend MODE
Voltage gain	G_{V1}	+9.5	+11.5	+13.5	dB	$V_{IN1}=V_{IN2}=-20\text{dBV}$, $R_f/R_s=100\text{k}/22\text{k}$, SE *1
Maximum output voltage 1	V_{OM1}	+4.0	+6.0	-	dBV	DSTN=1% BTL *1
Distortion rate	DSTN	-	0.2	1.0	%	$V_{IN1}=V_{IN2}=-20\text{dBV}$ SE *1
Output residual noise	V_{NO}	-	-94	-80	dBV	No signal,SE,Active MODE *2
Suspend attenuation value	G_S	-	-107	-80	dBV	$V_{IN1}=V_{IN2}=-20\text{dBV}$,BTL *2
BIAS setting voltage	V_{BIAS}	1.6	1.8	2.0	V	3pin DC voltage
Suspend holding voltage / H	V_{SH}	2.0	-	V_{CC}	V	Active MODE,Hold voltage
Suspend holding voltage / L	V_{SL}	0	-	0.5	V	Suspend MODE,Hold voltage

*1 : B.W.=0.4~30kHz
 *2 : DIN AUDIO

●Application Circuit

