



## TDA7267

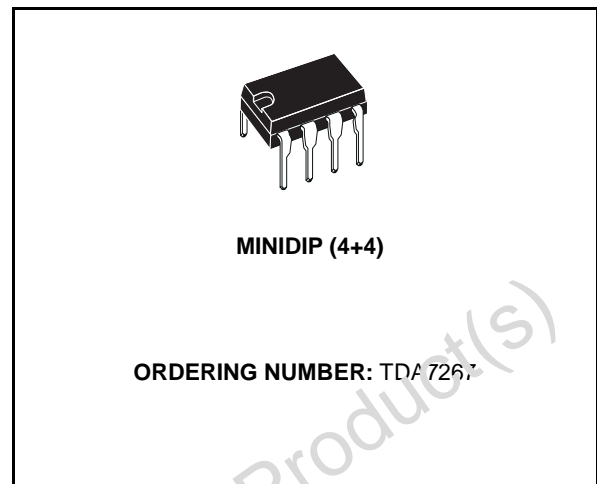
### 2W MONO AMPLIFIER

- CAN DELIVER 2W THD 10% 12V/8 $\Omega$
- INTERNAL FIXED GAIN 32dB
- NO FEEDBACK CAPACITOR
- NO BOUCHEROT CELL
- THERMAL PROTECTION
- AC SHORT CIRCUIT PROTECTION
- SVR CAPACITOR FOR BETTER RIPPLE REJECTION
- LOW TURN-ON/OFF POP
- STAND-BY MODE

#### DESCRIPTION

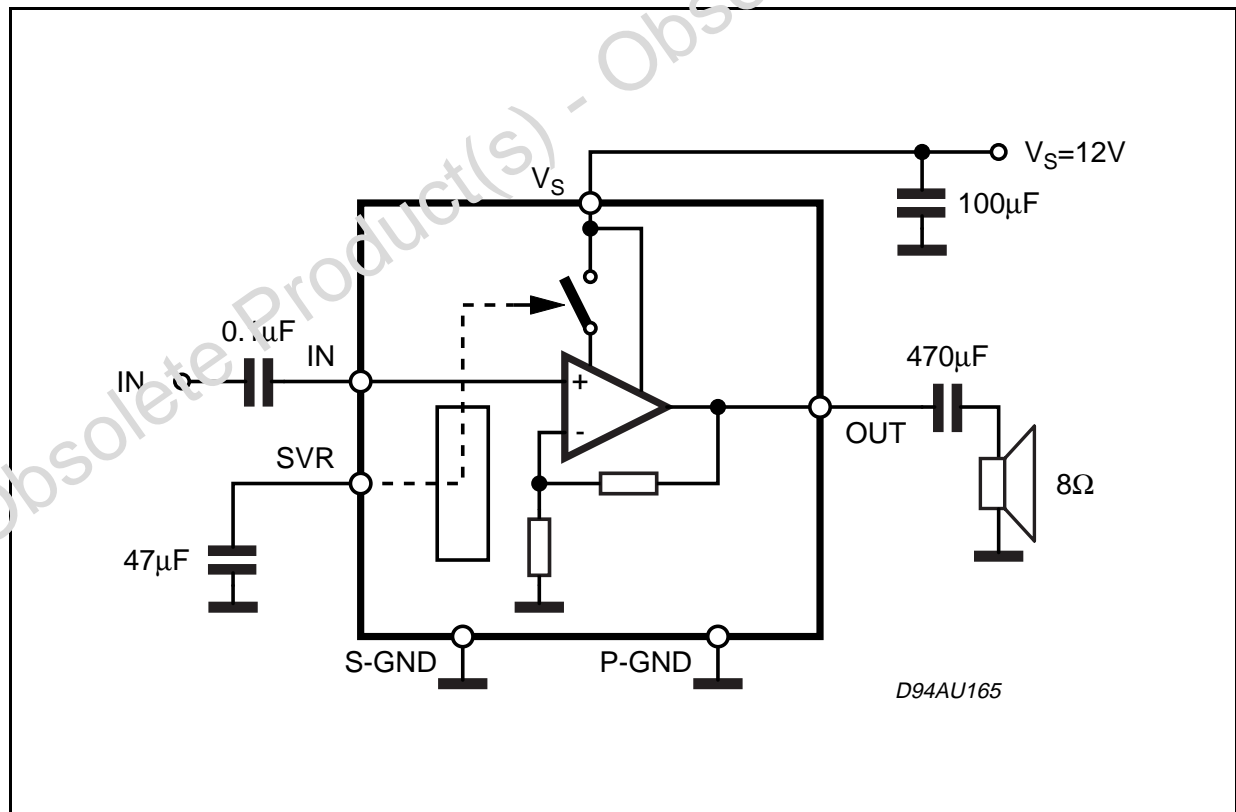
The device TDA7267 is a new technology Mono Audio Amplifier in MINIDIP package specifically designed for TV application.

Thanks to the fully complementary output configuration



the device delivers a rail to rail voltage swing without need of bootstrap capacitors.

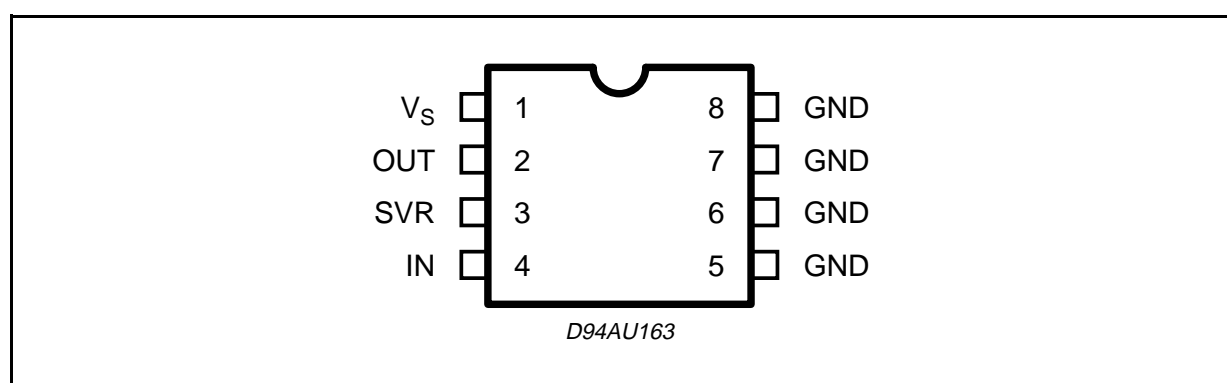
#### BLOCK DIAGRAM



## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_S$	Operating Supply Voltage	18	V
$I_O$	Output Put Peak Current	1.5	A
$T_{op}$	Operating Temperature Range	0 to 70	°C
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-40 to 125	°C

## PIN CONNECTION (Top view)



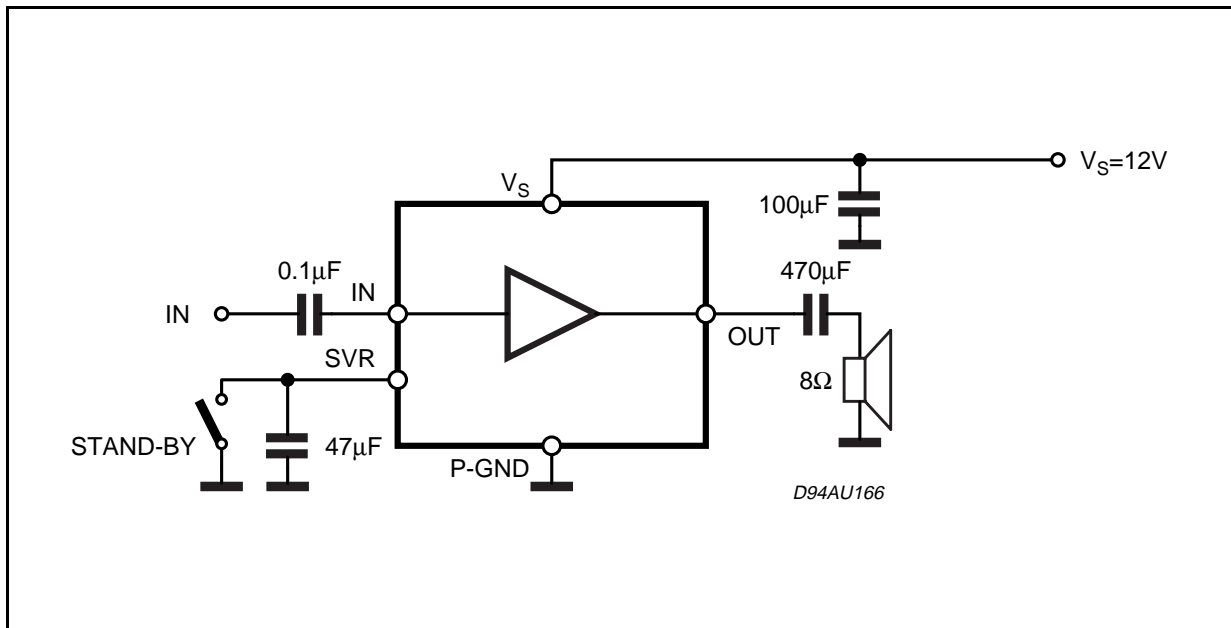
## THERMAL DATA

Symbol	Parameter	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction to ambient (on PCB)	80	°C/W
$R_{th\ j-case}$	Thermal Resistance Junction to case	15	°C/W

ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25^{\circ}\text{C}$ ;  $V_S = 12\text{V}$ ;  $R_L = 8\Omega$ ;  $f = 1\text{KHz}$ ; unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage Range		4.5		18	V
$I_S$	Quiescent Current			20	30	mA
$I_{sb}$	Stand-By Current	Pin 3 shorted to GND			0.3	mA
$V_O$	Quiescent Output Voltage			6		V
$A_V$	Voltage Gain			32		dB
$R_{IN}$	Input Impedance			100		K $\Omega$
$P_O$	Output Power	THD = 10%	1.8	2		W
THD	Distortion	$P_O = 1\text{W}$			1.0	%
SVR	Supply Voltage Rejection	$V_{ripple} = 150\text{mVrms}$ ; $F_{ripple} = 1\text{KHz}$		50		dB
$E_I$	Input Noise Voltage	$R_g = 10\text{K}\Omega$ ; BW = 20Hz to 20KHz		1.5	5	$\mu\text{V}$
$V_{sb}$	Stand-By Enable Voltage				1	V

## APPLICATION CIRCUIT



## APPLICATION HINTS:

For 12V supply and 8Ω speaker application, its maximum power dissipation is about 1W.

Assuming that max ambient temperature is 70°C. Required thermal resistance of the device and heat dissipating means must be equal to  $(150 - 70)/1 = 80^{\circ}\text{C/W}$ .

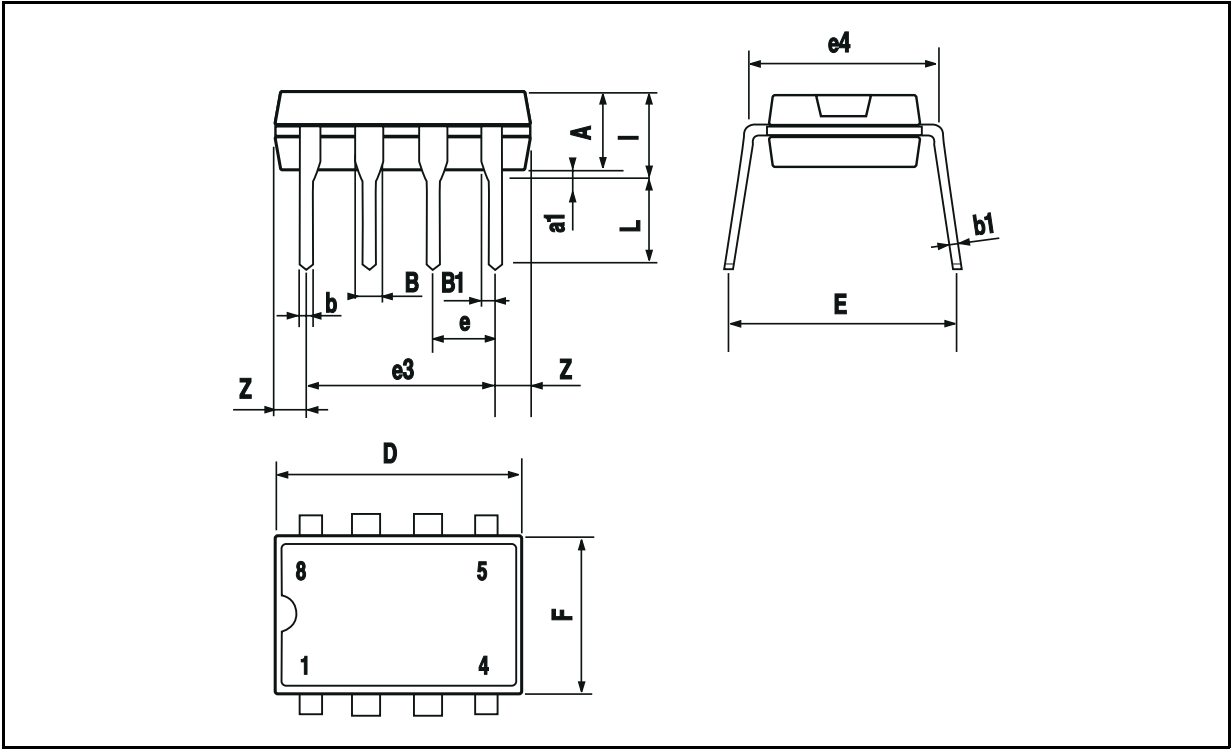
Junction to pin thermal resistance of the package is about 15°C/W. That means external heat sink of about 65°C/W is required.

Cu ground plane of PCB can be used as heat dissipating means.

Stand-By switches must be able to discharge  $C_{SVR}$  current.

MINIDIP PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		3.3			0.130	
a1	0.7			0.028		
B	1.39		1.65	0.055		0.065
B1	0.91		1.04	0.036		0.041
b		0.5			0.020	
b1	0.38		0.5	0.015		0.020
D			9.8			0.386
E		8.8			0.346	
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			7.1			0.280
I			4.8			0.189
L		3.3			0.130	
Z	0.44		1.6	0.017		0.063



Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics  
© 1998 STMicroelectronics – Printed in Italy – All Rights Reserved  
STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - France - Germany - Italy - Japan - Korea - Malaysia - Malta - Mexico - Morocco - The Netherlands -  
Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.