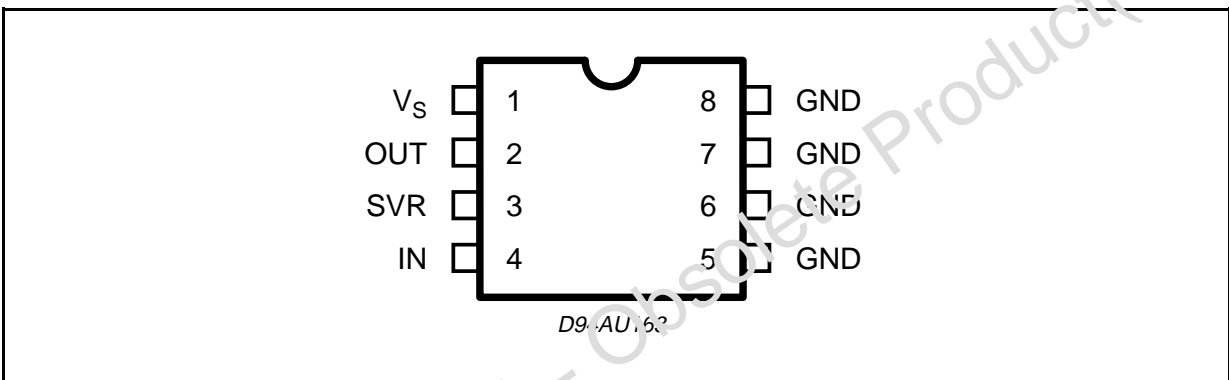


ABSOLUTE MAXIMUM RATINGS

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)



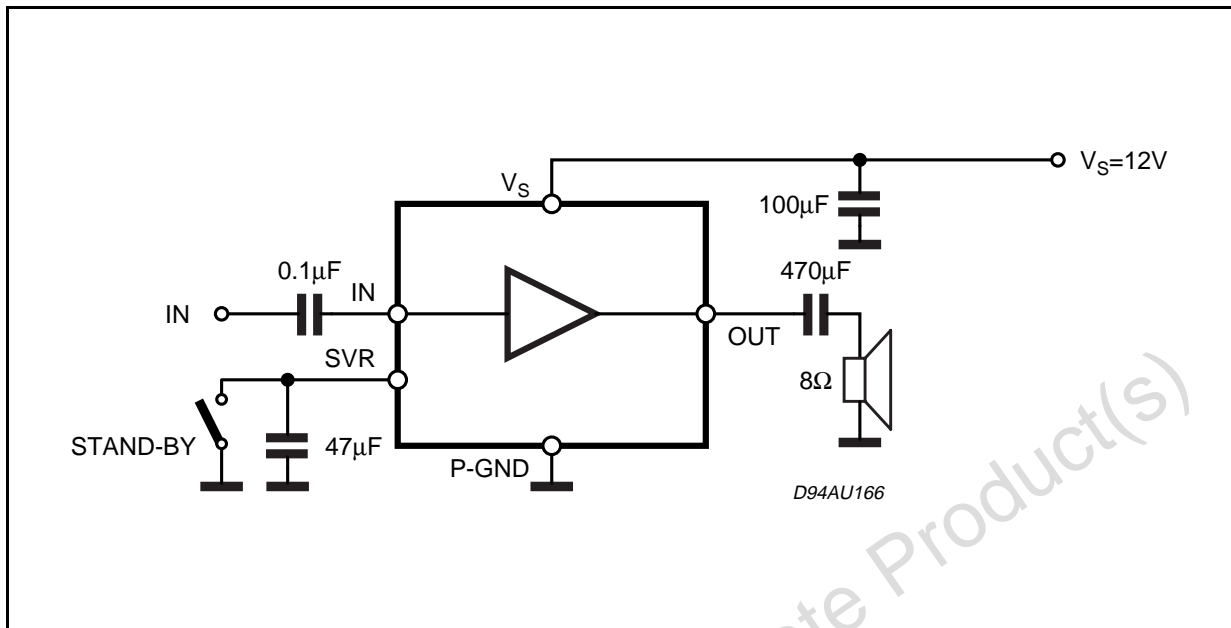
THERMAL DATA

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 Ω
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	μV
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 $(150 - 70)/1 = 80^\circ\text{C/W}$.

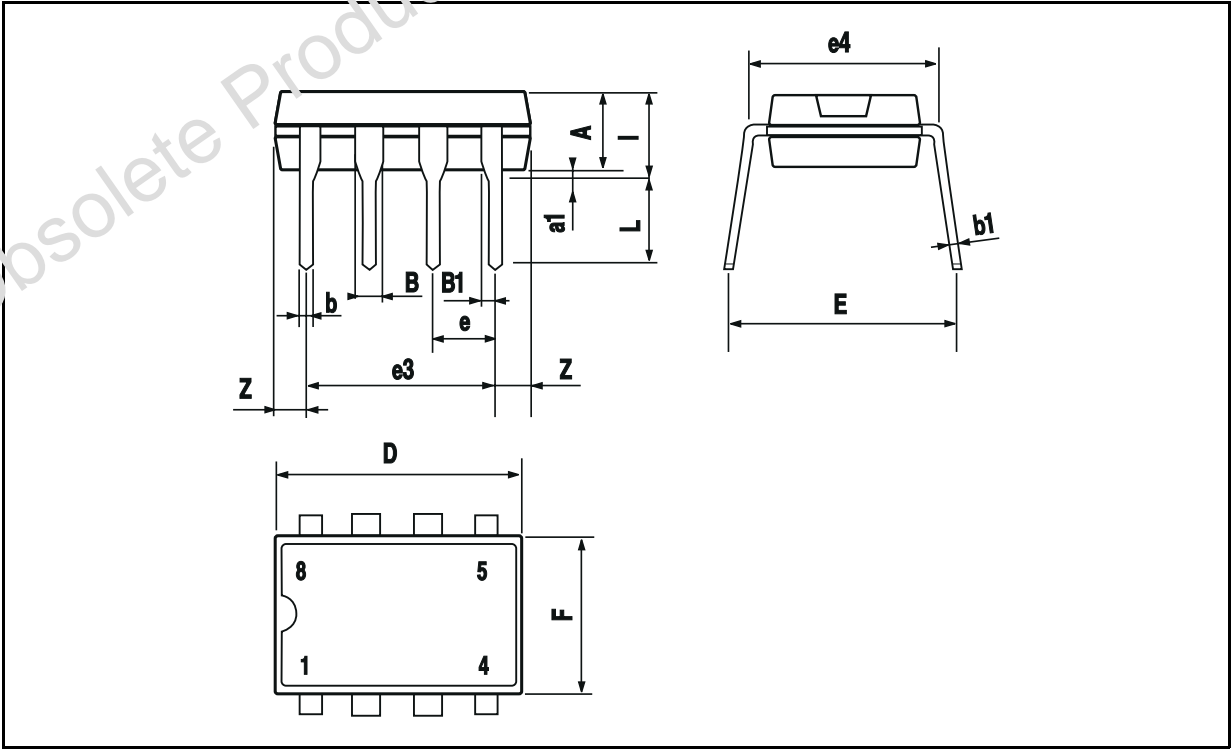
Junction to pin thermal resistance of the package is about 15°C/W. That means external heat sink of about 65°C/W is required.

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			4.3			0.189
L		3.3			0.130	
Z	0.44		1.6	0.017		0.063



Obsolete Product(s) - Obsolete Product(s)

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.

