TDA2003LG



10 W car radio audio amplifier

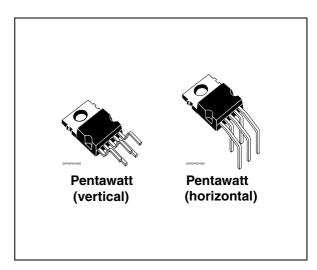
Data brief - preliminary data

Features

- Low distortion
- Protection against:
 - DC and AC short circuits to ground
 - Overrating chip temperature
 - Load dump voltage surge
 - Fortuitous open ground
 - Very inductive loads
- Ease of assembly
- Cost and space savings

Description

The TDA2003LG is a single channel class AB power amplifier which provides a high output current capability (up to 3.5 A) with very low harmonic and crossover distortion.



This power amplifier is protected against DC and AC short circuits between all pins and ground, fortuitous open ground, load dump surge up to 40 V and thermal over-range.

Table 1. Device summary

Order code	Package	Packing
TDA2003VLG	Pentawatt (vertical)	Tube
TDA2003HLG	Pentawatt (horizontal)	Tube

Contents TDA2003LG

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1 Schematic, test circuits and pins connections diagrams

Figure 1. Schematic diagram

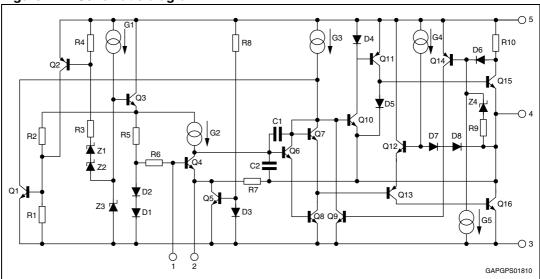


Figure 2. DC test circuit

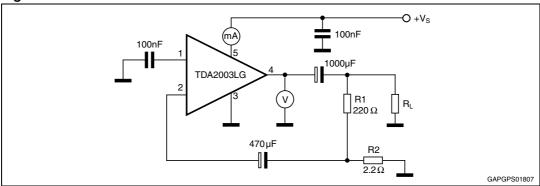


Figure 3. AC test circuit

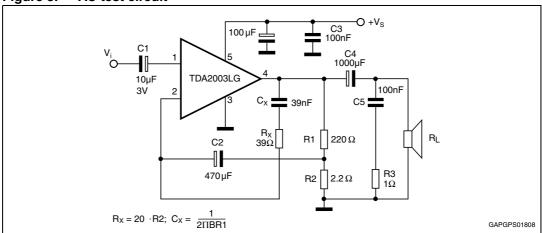
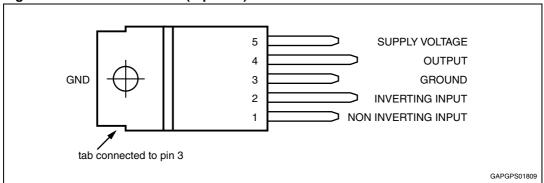


Figure 4. Pins connection (top view)



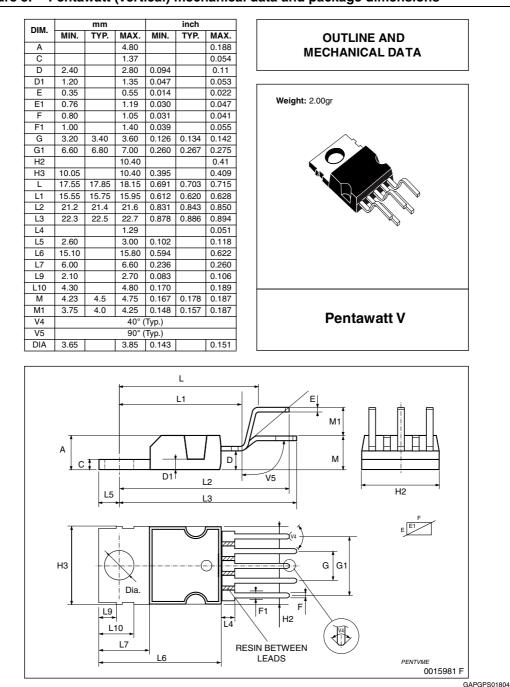
TDA2003LG Package information

2 Package information

In order to meet environmental requirements, ST offers these devices in different grades of ECOPACK[®] packages, depending on their level of environmental compliance. ECOPACK[®] specifications, grade definitions and product status are available at: www.st.com.

 $\mathsf{ECOPACK}^{(\! R \!)}$ is an ST trademark.

Figure 5. Pentawatt (vertical) mechanical data and package dimensions



Package information TDA2003LG

Figure 6. Pentawatt (horizontal) mechanical data and package dimensions

ЭΙΜ. ——	mm		inch			
MIN MIN	I. TYP.	MAX.	MIN.	TYP.	MAX.	OUTLINE AND
A		4.80			0.188	MECHANICAL DATA
С		1.37			0.054	
D 2.4)	2.80	0.094		0.11	
D1 1.2)	1.35	0.047		0.053	
E 0.3	5	0.55	0.014		0.022	
F 0.8)	1.05	0.031		0.041	
F1 1.0)	1.40	0.039		0.055	
G 3.2	3.40	3.60	0.126	0.134	0.142	
31 6.6	6.80	7.00	0.260	0.267	0.275	
12		10.40			0.41	
13 10.0	5	10.40	0.395		0.409	
L 14.2	0	15.00	0.56		0.59	
L1 5.7)	6.20	0.224		0.244	
L2 14.6	0	15.20	0.574		0.598	
L3 3.5)	4.10	0.137		.161	Ψ
L4		1.29			0.05	
L5 2.6)	3.00	0.102		0.118	
L6 15.1	0	15.80	0.594		0.622	
L7 6.0)	6.60	0.236		0.260	
L9 2.1)	2.70	0.083		0.106	Pentawatt H
_10 4.3)	4.80	0.170		0.189	
0IA 3.6	5	3.85	0.143		0.151	
	L3	D	D.	+	L7	C A L1
F1 R	L3	4	D	L6	L7 L5 Dia.	F G G H2

GAPGPS01803

TDA2003LG Revision history

3 Revision history

Table 2. Document revision history

Date	Revision	Changes
25-Jul-2012	1	Initial release.

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