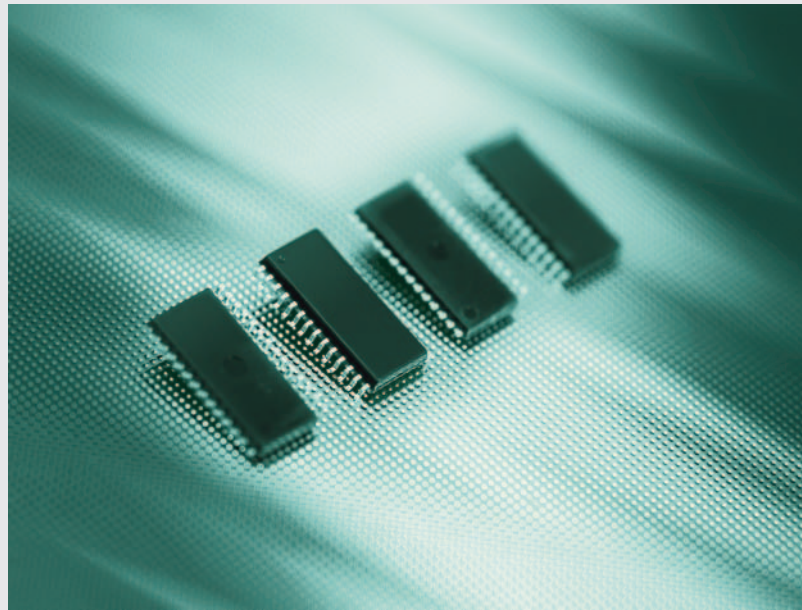


The BTS 724G is a four channel high-side power switch (four times 90 mΩ) in P-DSO-20 package. It is fully protected by embedded protection functions.

There are two diagnostic feedback pins signalling open load and over temperature. The device is built by two chips, monolithically integrated in Smart SIPMOS technology.

The power transistor is built by a N-channel vertical power MOSFET with charge pump. The inputs are ground referenced CMOS compatible.



BTS 724G

#### Basic Functions

- Very low standby current
- CMOS compatible input
- Improved electromagnetic compatibility (EMC)
- Fast demagnetization of inductive loads
- Stable behaviour at undervoltage
- Wide operating voltage range
- Logic ground independent from load ground

#### Protective Functions

- Short circuit protection
- Overload protection
- Current limitation
- Thermal shutdown
- Overvoltage protection (including load dump) with external resistor
- Reverse battery protection with external resistor
- Loss of ground and loss of  $V_{bb}$  protection
- Electrostatic discharge protection (ESD)

#### Diagnostic Functions

- Diagnostic feedback with open drain output
- Open load detection in OFF-state
- Feedback of thermal shutdown in ON-state

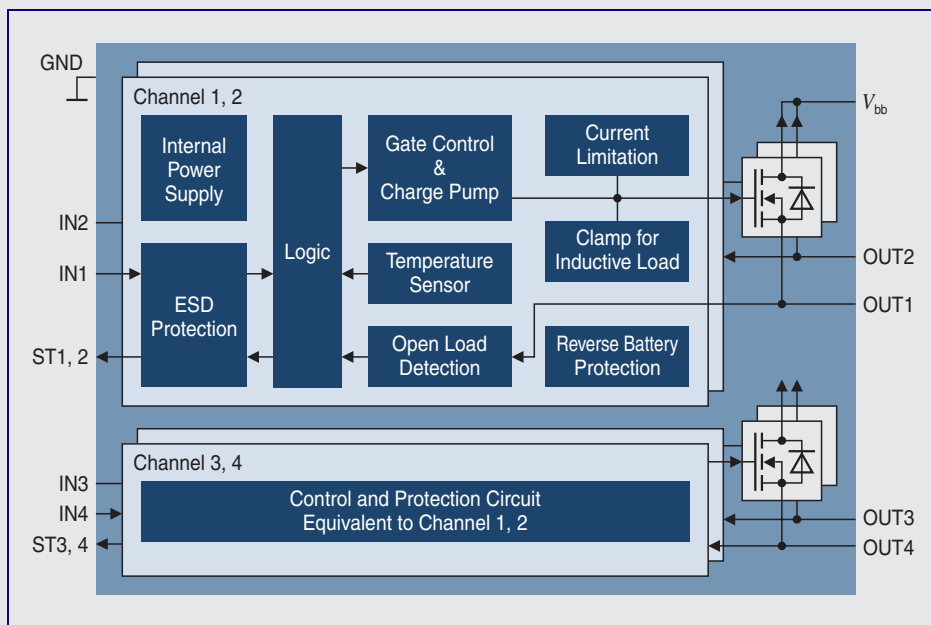
#### Applications

- $\mu$ C compatible high-side power switch with diagnostic feedback for 12 V and 24 V grounded loads
- All types of resistive, inductive and capacitive loads
- Most suitable for loads with high inrush currents, so as lamps
- Replaces electromechanical relays, fuses and discrete circuits

Smart High-Side  
Power Switch  
Four Channels 90 mΩ



## Block Diagram

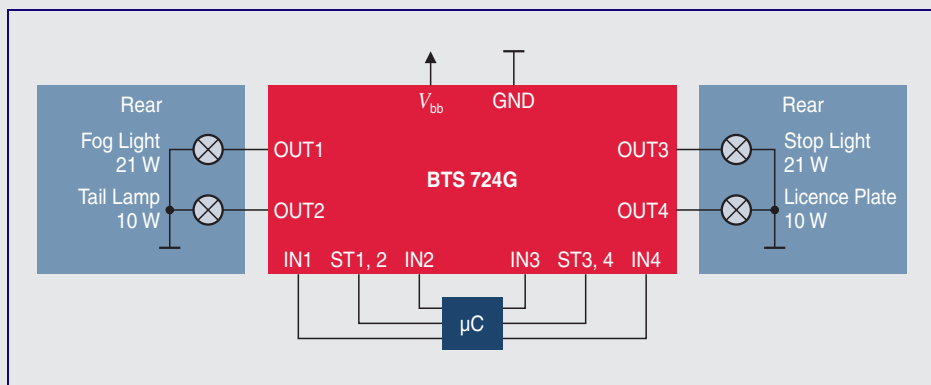


## Product Summary

Type	Sales Code	Package
BTS 724G	Q67060-S7026	P-DSO-20

Parameter	Symbol	Values		
Operating Voltage	$V_{bb(ON)}$	5.5 ... 40 V		
<b>Active Channels</b>		<b>One</b>	<b>Two</b>	<b>Four</b>
On-state Resistance	$R_{ON(max)}$	90 mΩ	45 mΩ	22 mΩ
Nominal Load Current	$I_{L(nom)}$	3.2 A	4.5 A	7.0 A
Current Limitation	$I_{L(SCr)}$	12 A		

## Application Example



How to reach us:  
<http://www.infineon.com>

Published by  
**Infineon Technologies AG,**  
 St.-Martin-Strasse 53,  
 D-81669 München

© Infineon Technologies AG 2003. All Rights Reserved.

### Attention please!

The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

### Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office.

### Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Template: pb\_tmplt.fm/2/2003-05-01