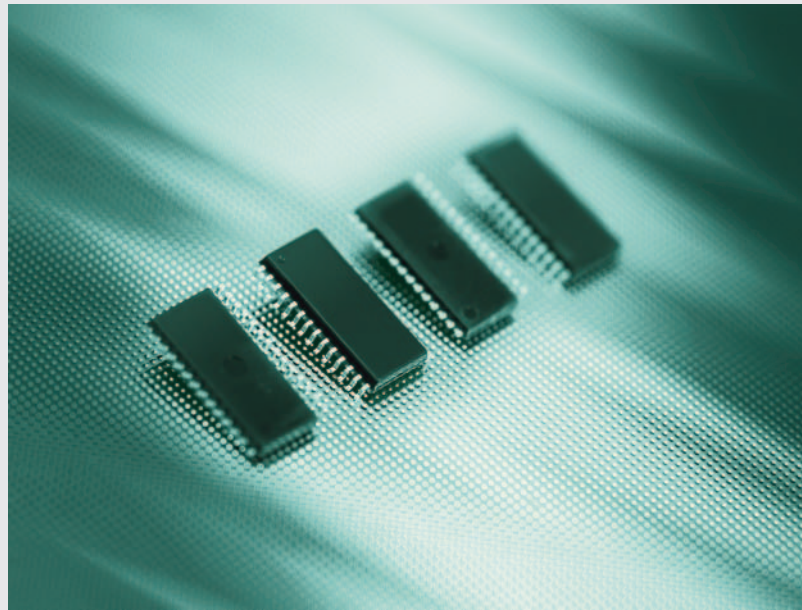


The BTS 716G is a four channel high-side power switch (four times 140 mΩ) in P-DSO-20 package. It is fully protected by embedded protection functions.

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 716G

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

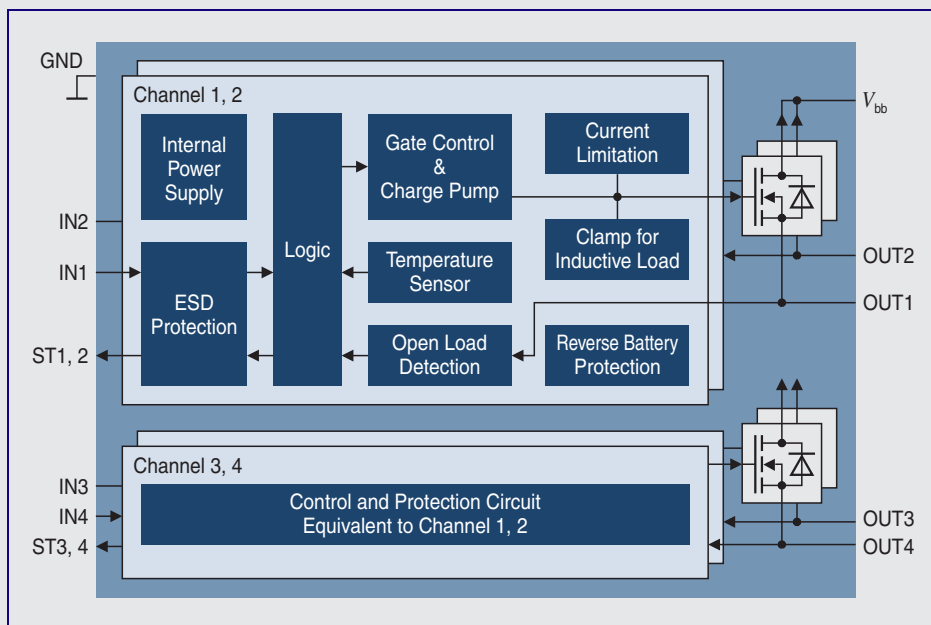
Applications

- μ 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 140 mΩ



Block Diagram

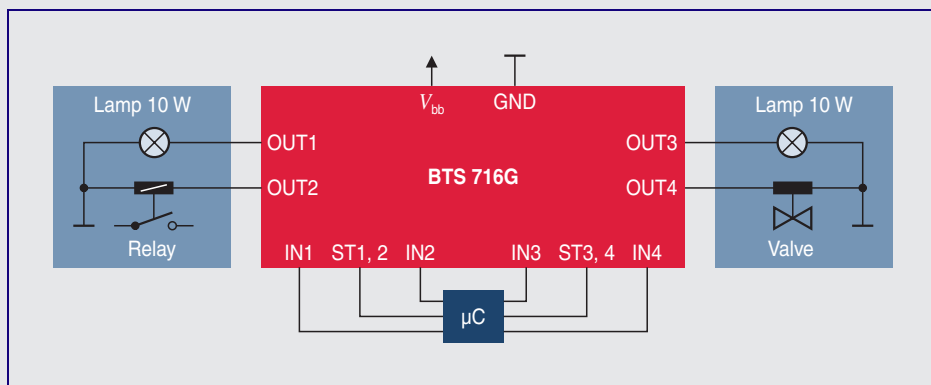


Product Summary

Type	Sales Code	Package
BTS 716G	Q67060-S7025	P-DSO-20

Parameter	Symbol	Values		
Operating Voltage	$V_{bb(ON)}$	5.5 ... 40 V		
Active Channels		One	Two	Four
On-state Resistance	$R_{ON(max)}$	140 mΩ	70 mΩ	35 mΩ
Nominal Load Current	$I_{L(nom)}$	2.4 A	3.7 A	5.7 A
Current Limitation	$I_{L(SCr)}$	6.5 A		

Application Example



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