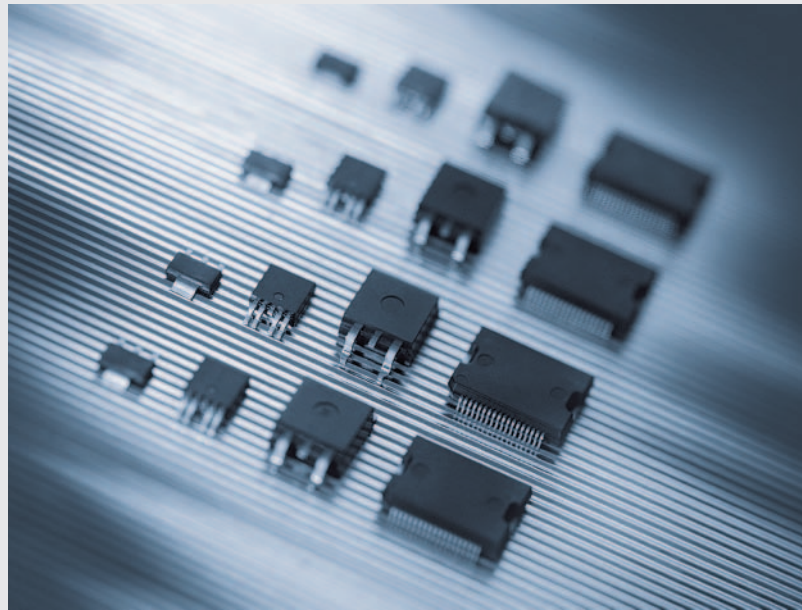


The BTS 5210G is a dual channel high-side power switch (two times 140 mΩ) in P-DSO-14 package. The BTS 5210L is the same chip in Power SO-12 package. They are fully protected by embedded protection functions.

There is one diagnostic feedback pin for each channel signalling open load and over temperature. The device is 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 5210G/L

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

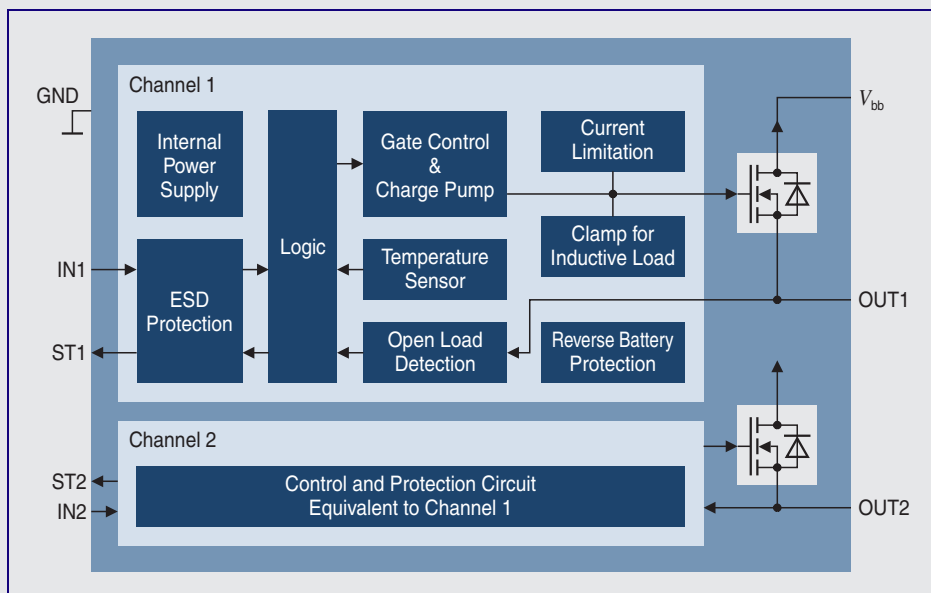
Applications

- 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
Two Channels 140 mΩ



Block Diagram

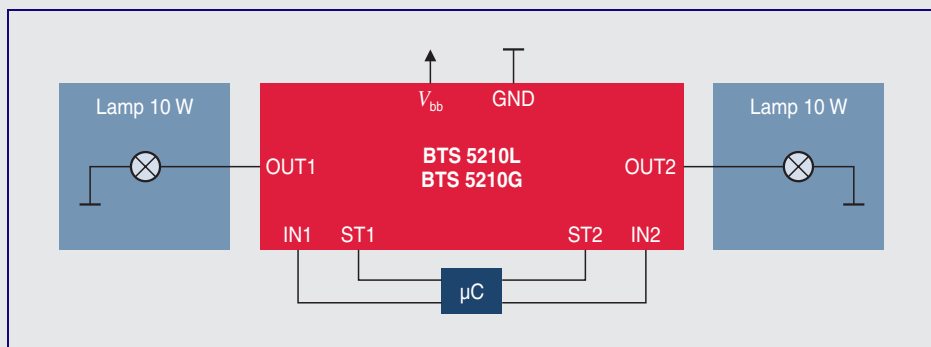


Product Summary

Type	Sales Code	Package
BTS 5210G	Q67060-S7502	P-DSO-14
BTS 5210L	Q67060-S7503	Power SO-12

Parameter	Symbol	Values	
Operating Voltage	$V_{bb(ON)}$	5.5 ... 40 V	
Active Channels		One	Two parallel
On-state Resistance	$R_{ON(max)}$	140 m Ω	70 m Ω
Nominal Load Current	$I_{L(nom)BTS\ 5210G}$	2.4 A	4.0 A
	$I_{L(nom)BTS\ 5210L}$	2.4 A	4.3 A
Current Limitation	$I_{L(SCr)}$	6.5 A	

Application Example



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