

## WS7010AF

**Smart High-Side Power Switch Single Channel, 13.5mΩ, DFN5×6-14L , AEC-Q100 qualified**

### Application

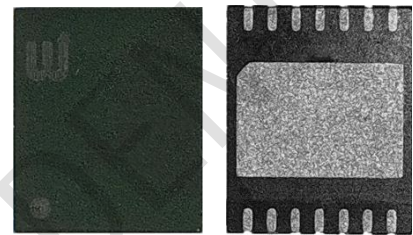
- ◆ Suitable for resistive, inductive and capacitive loads
- ◆ Specially intended for automotive signal lamps
- ◆ Replaces electromechanical relays, fuses and discrete circuits

### Basic Features

- ◆ Single channel device
- ◆ Standby current <2.0μA
- ◆ 3.3 V and 5 V compatible logic inputs
- ◆ RoHS compliant and lead free
- ◆ AEC-Q100 qualified

### Package Information

<b>Package</b>	DFN5×6-14L
<b>Marking</b>	WS7010AF



### Product Summary

Parameter	Symbol	Value
Max. DC supply voltage	$V_S$	35V
Operating voltage range	$V_{NOM}$	4.5-28V
On-state resistance (per channel, Typ.)	$R_{ON}$	13.5mohm
Nominal load current	$I_{L(NOM)}$	11A
Typical current sense ratio ( $I_L=8A$ )	K	3250
Current limitation (typ.)	$I_{LIMH}$	48A
Supply current in standby mode	$I_{STBY}$	<2.0μA

### Diagnostic Functions

- ◆ Multiplexed analog feedback of load current with high precision proportional current mirror
- ◆ Off-state open load detection
- ◆ Output short to  $V_S$  detection

### Protection Functions

- ◆ Undervoltage shutdown
- ◆ Overvoltage clamp
- ◆ Load current limitation
- ◆ Output short-circuit protection
- ◆ Self limiting of fast thermal transients
- ◆ Protection against loss of ground and loss of  $V_S$
- ◆ Thermal shutdown indication
- ◆ Electrostatic discharge protection

## Typical Application Circuit

