

### **WS7020AF**

### Smart High-Side Power Switch Single Channel, 23mΩ, 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 <1.0µA
- 3.3 V and 5 V compatible logic inputs
- RoHS compliant and lead free
- AEC-Q100 qualified

## **Product Summary**

Package Information  Package DFN5×6-14L			
Package	DFN5×0-14L		
Marking	WS7020AF		

Parameter	Symbol	Value
Max. DC supply voltage	Vs	35V
Operating voltage range	V <sub>NOM</sub>	4.5-28V
On-state resistance (per channel, Typ.)	Ron	23mohm
Nominal load current	I <sub>L(NOM)</sub>	7.5A
Typical current sense ratio (I <sub>L</sub> =3A)	К	3160
Current limitation (typ.)	I <sub>LIMH</sub>	24A
Supply current in standby mode	I <sub>STBY</sub>	<1.0µA

# **Diagnostic Functions**

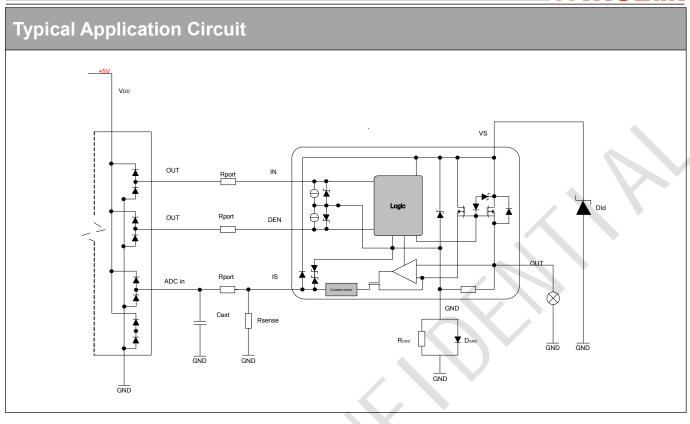
- Multiplexed analog feedback of load current with high precision proportional current mirror
- Off-state open load detection
- Output short to Vs detection

### **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 Vs
- Thermal shutdown indication
- Electrostatic discharge protection

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