

WSTQ6160AN-L**Smart High-Side Power Switch Quad Channel, 140mΩ, DFN9×6-14L , AEC-Q100 qualified****Application**

- ◆ Suitable for resistive, inductive and capacitive loads
- ◆ Replaces electromechanical relays, fuses and discrete circuits
- ◆ Most suitable for loads with high inrush current, such as lamps
- ◆ Suitable for 12V and 24V trucks + trailer and transportation systems

Basic Features

- ◆ PRO-SIL™ ISO 26262-ready for supporting the integrator in evaluation of hardware element according to ISO 26262:2018 Clause 8-13
- ◆ Quad channel device
- ◆ Very low stand-by current
- ◆ 3.3 V and 5 V compatible logic inputs
- ◆ Optimized electromagnetic compatibility
- ◆ Very low electromagnetic susceptibility
- ◆ Adjustable current limitation

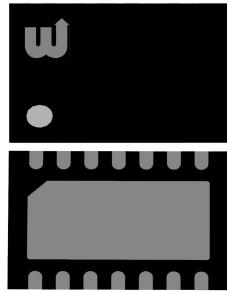
Diagnostic Functions

- ◆ Proportional load current sense
- ◆ High current sense precision for wide range currents
- ◆ Off-state open load detection
- ◆ OUT short to VS detection
- ◆ Overload and short to ground latch-off
- ◆ Thermal shutdown latch-off
- ◆ Very low current sense leakage

Protection Functions

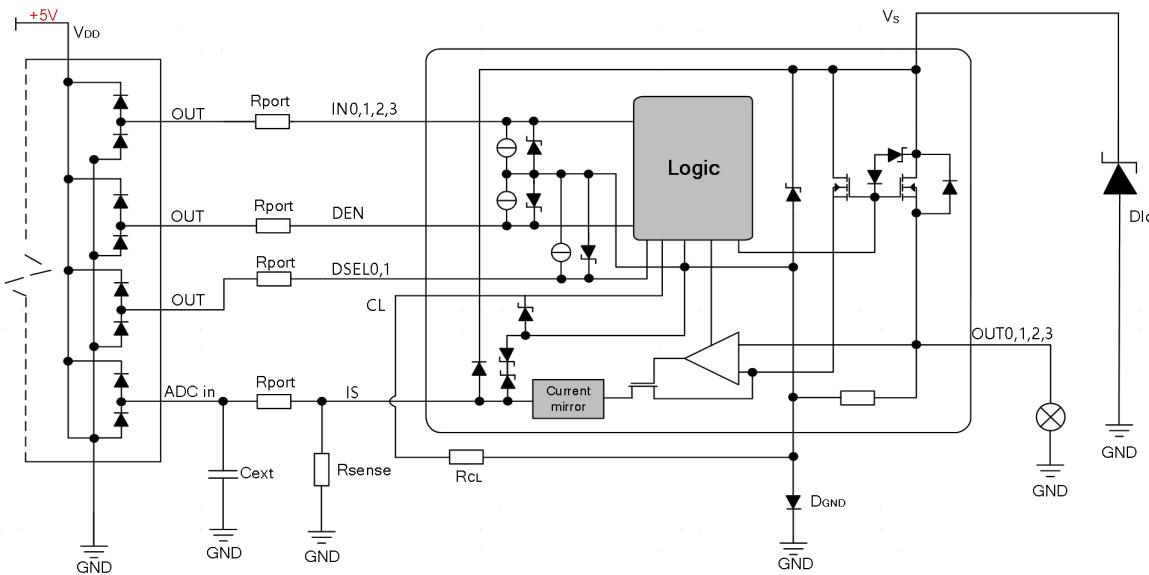
- ◆ Undervoltage shutdown
- ◆ Overvoltage clamp
- ◆ Load current limitation
- ◆ Self limiting of fast thermal transients
- ◆ Protection against loss of ground and loss of VS
- ◆ Thermal shutdown

Product Summary

Package	DFN9×6-14L
Marking	WSTQ6160ANL
	



Parameter	Symbol	Value
Max. transient supply voltage	V_S	60V
Operating voltage range	V_{NOM}	8-36V
On-state resistance (per channel)	R_{ON}	140mΩ
Nominal load current (one channel active)	$I_{L(NOM)1}$	2.5A
Nominal load current (All channels active)	$I_{L(NOM)2}$	1.8A
Typical current sense ratio	K	465
Current limitation	I_{LIMH}	Adjustable
Supply current in sleep	I_{SLEEP}	3uA

Typical Application Circuit

Note1: For D_{GND} , the diode with lower V_F is advisable.