

WSTQ6080AN-L

Smart High-Side Power Switch Quad Channel, 80mΩ, 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

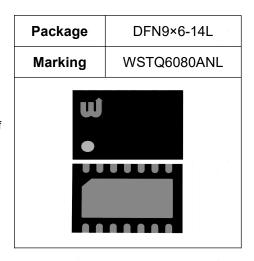
Diagnostic Functions

- 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
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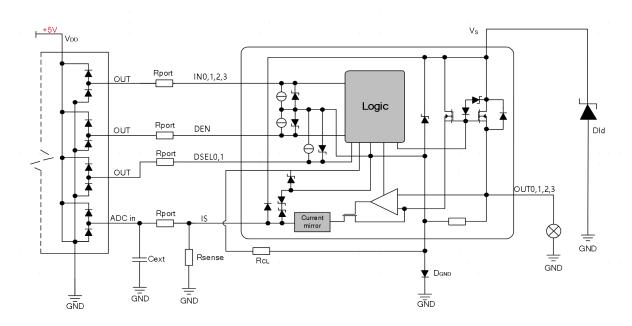
Product Summary

Parameter	Symbol	Value
Max. transient supply voltage	Vs	60V
Operating voltage range	V _{NOM}	8-36V
On-state resistance (per channel, $T_j = 25^{\circ}C$)	R _{ON}	80mΩ
Nominal load current (one channel active, $T_j = 25^{\circ}C$)	I _{L(NOM)1}	3A
Nominal load current (All channels active, T _j = 25 °C)	I _{L(NOM)2}	2A
Typical current sense ratio (I _{OUT} =1A)	К	820
Current limitation	ILIMH	Adjustable
Supply current in sleep	I _{SLEEP}	3uA

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Typical Application Circuit



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

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