WSTD6080AN
Smart High-Side Power Switch Dual Channel，70mΩ，DFN9×6-14L ， *AEC-Q100 qualified*

Application

Package	DFN9×6-14L
Marking	WSTD6080AN

- ◆ 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 12 V and 24 V trucks + trailer and transportation systems

Basic Features

- ◆ Dual channel device
- ◆ Very low stand-by current
- ◆ 3.3 V and 5 V compatible logic inputs
- ◆ Optimized electromagnetic compatibility
- ◆ Very low electromagnetic susceptibility

AEC Qualified

RoHS

ISO 26262 ready

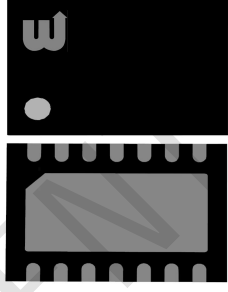Halogen-free

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
- ◆ Electrostatic discharge protection

Product Summary

Parameter	Symbol	Value
Max. transient supply voltage	V_S	60V
Operating voltage range	V_{NOM}	8-36V
On-state resistance (per channel，$T_j = 25℃$)	R_{ON}	70mΩ
Nominal load current (one channel active，$T_j = 25℃$)	$I_{L(NOM)1}$	5A
Nominal load current (All channels active，$T_j = 25℃$)	$I_{L(NOM)2}$	3.5A
Typical current sense ratio ($I_{OUT}=2A$)	K	930
Current limitation	I_{LIMH}	10A
Supply current in sleep	I_{SLEEP}	3uA

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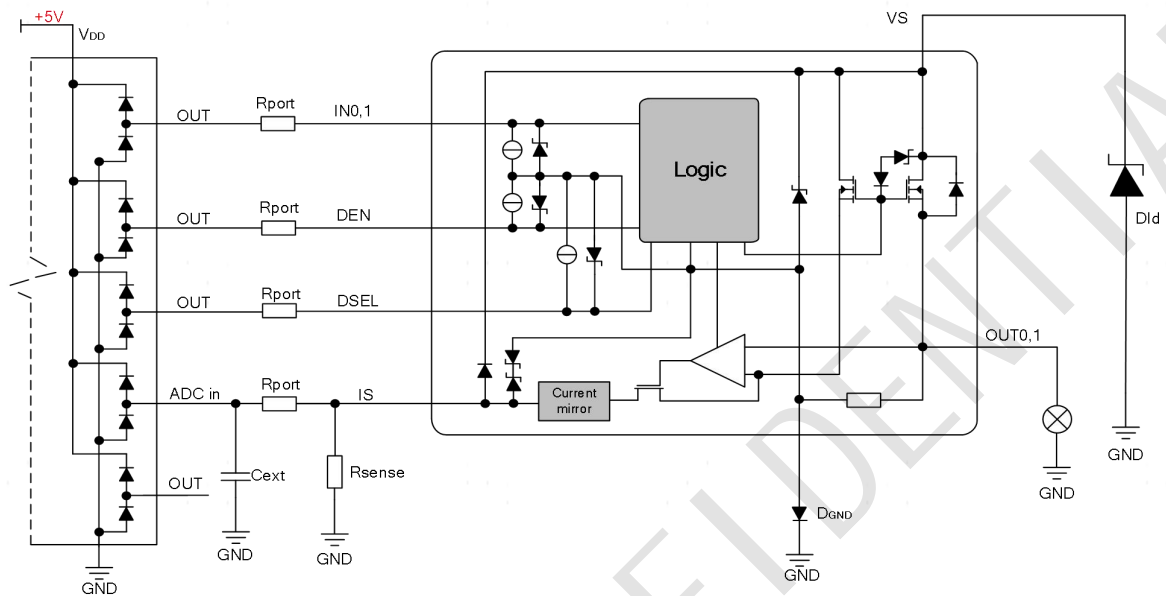
Note1：For D_{GND}, the diode with lower V_F is advisable.

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