

WSTD6080AN-L

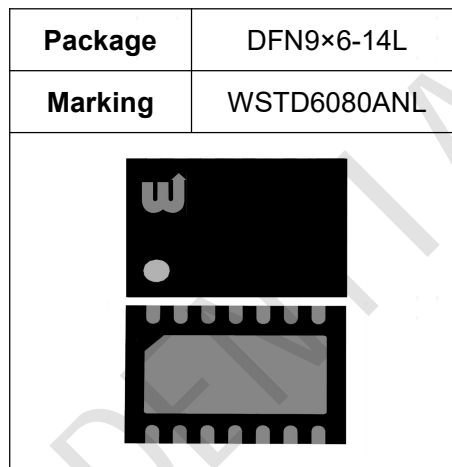
Smart High-Side Power Switch Dual Channel, 70mΩ, DFN9×6-14L , AEC-Q100 qualified

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 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
- ◆ User 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



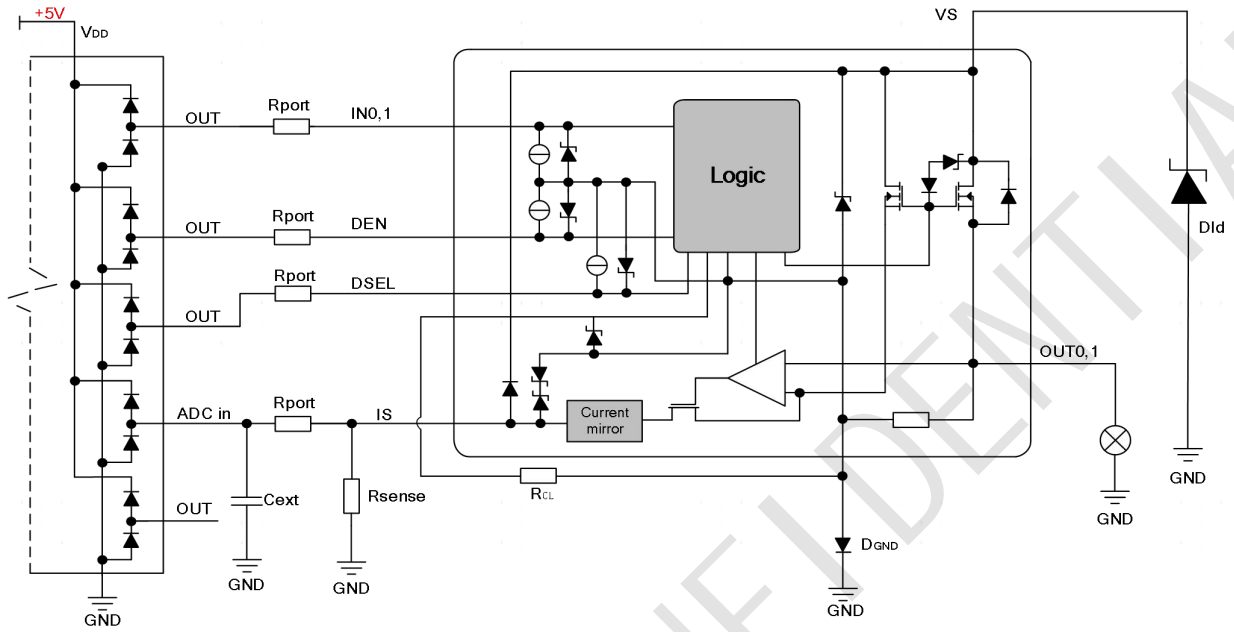
Protection Functions

- ◆ 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

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°C)	R _{ON}	70mΩ
Nominal load current (one channel active, T _j = 25°C)	I _{L(NOM)1}	5A
Nominal load current (All channels active, T _j = 25°C)	I _{L(NOM)2}	3.5A
Typical current sense ratio (I _{OUT} =2A)	K	930
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.