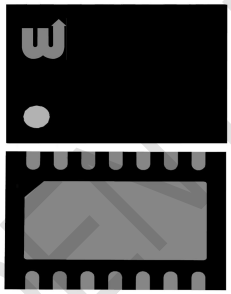
WST6020AN

Smart High-Side Power Switch Single Channel，20mΩ，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

Package	DFN9×6-14L
Marking	WST6020AN



AEC Qualified

RoHS

ISO 26262 ready

Halogen-free

Basic Features

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

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

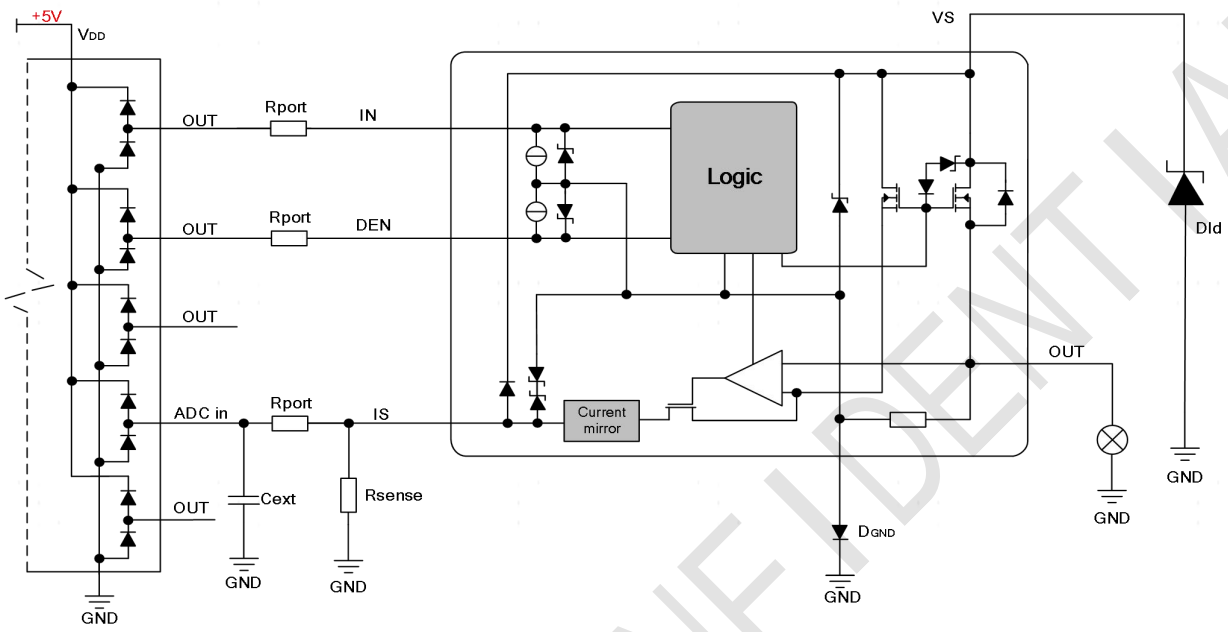
Protection Functions

- 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 (T_j = 25℃)	R_{ON}	20mΩ
Nominal load current (T_j = 25℃)	$I_{L(NOM)}$	9A
Typical current sense ratio (I_{OUT}=4A)	K	3200
Current limitation	I_{LIMH}	30A
Supply current in sleep	I_{SLEEP}	3uA

Typical Application Circuit



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