

**WSTD6020AN****Smart High-Side Power Switch Dual Channel, 18mΩ, 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

**Diagnostic Functions**

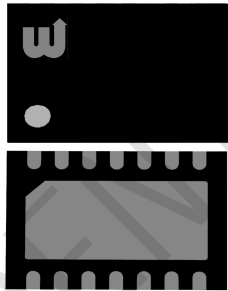
- ◆ Proportional load current sense
- ◆ High current sense precision for wide range currents
- ◆ Off-state open load detection
- ◆ OUT short to VS detection
- ◆ Overload and short to ground latch-off
- ◆ Thermal shutdown latch-off
- ◆ Very low current sense leakage

**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, $T_j = 25^\circ\text{C}$ )	$R_{ON}$	18mΩ
Nominal load current (one channel active, $T_j = 25^\circ\text{C}$ )	$I_{L(NOM)1}$	9A
Nominal load current (All channels active, $T_j = 25^\circ\text{C}$ )	$I_{L(NOM)2}$	7A
Typical current sense ratio ( $I_{OUT}=4A$ )	K	2630
Current limitation	$I_{LIMH}$	40A
Supply current in sleep	$I_{SLEEP}$	3uA

<b>Package</b>	DFN9×6-14L
<b>Marking</b>	WSTD6020AN
	

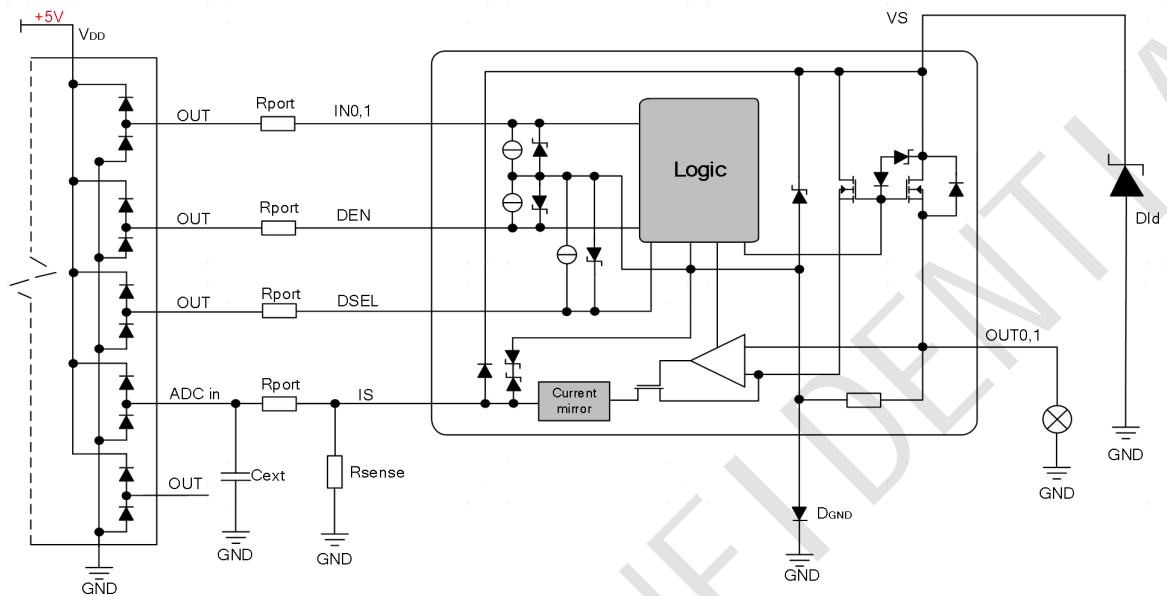


RoHS

ISO 26262  
ready

Halogen-free

## Typical Application Circuit



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