

WST6050AN-L

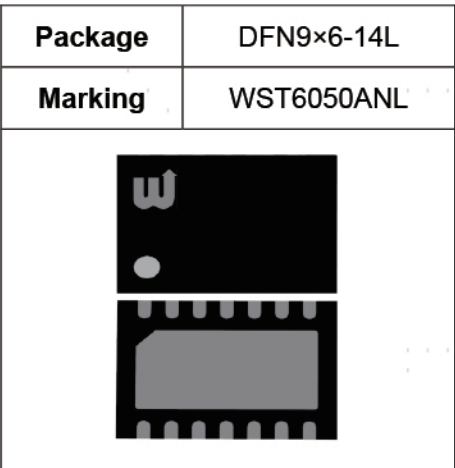
Smart High-Side Power Switch Single Channel, 35mΩ, DFN9×6-14L , AEC-Q100 qualified

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

- ◆ Single 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



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°C)	R _{ON}	35mΩ
Nominal load current (T _J = 25°C)	I _{L(NOM)}	7A
Typical current sense ratio (I _{OUT} =2A)	K	1800
Current limitation	I _{LIMH}	Adjustable
Supply current in sleep	I _{SLEEP}	3uA

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

Package Outline

DFN9×6-14L

TOP VIEW

BOTTOM VIEW

SIDE VIEW

Section A-A

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.70	0.75	0.80
A1	0	0.02	0.05
b	0.45	0.50	0.55
b1	0.35REF		
c	0.203REF		
D	8.90	9.00	9.10
D2	6.75	6.85	6.95
e	1.27BSC		
Nd	7.62BSC		
E	5.90	6.00	6.10
E2	3.16	3.26	3.36
L	0.62	0.67	0.72
h	0.30	0.35	0.40
K	0.70REF		
W _{sc}	0.01	-	0.09
t _{sc}	0.08	-	0.18