

WSQ7140AD

Smart High-Side Power Switch Quad Channel, 120mΩ, DFN5×6-16L, AEC-Q100 qualified

Application

- Suitable for resistive, inductive and capacitive loads
- Specially intended for automotive signal lamps
- Replaces electromechanical relays, fuses and discrete circuits

Basic Features

- Four channel device
- Standby current <2.0µA
- 3.3 V and 5 V compatible logic inputs
- RoHS compliant and lead free
- AEC-Q100 qualified

Product Summary

Package Information			
Package	DFN5×6-16L		
Marking	WSQ7140AD		
	Pillip		

Parameter	Symbol	Value
Max. DC supply voltage	V _{CC}	35V
Operating voltage range	V _{NOM}	4.5-28V
On-state resistance (per channel, Typ.)	Ron	120mohm
Nominal load current (one channel active)	I _{L(NOM)1}	3A
Nominal load current (All channels active)	I _{L(NOM)2}	1.8A
Typical current sense ratio(I _{OUT} =1A)	К	665
Current limitation (typ.)	I _{LIMH}	6A
Supply current in standby mode	Ізтву	<2.0µA

Diagnostic Functions

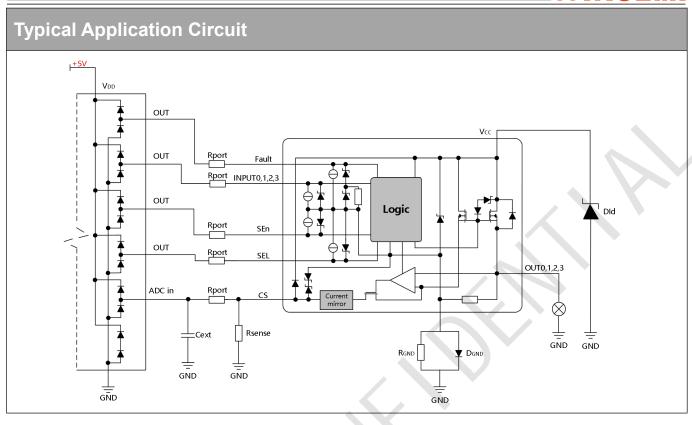
- Multiplexed analog feedback of load current with high precision proportional current mirror
- Off-state open load detection
- Output short to V_S detection

Protection Functions

- Undervoltage shutdown
- Overvoltage clamp
- Load current limitation
- Output short-circuit protection
- Self limiting of fast thermal transients
- Protection against loss of ground and loss of V_S
- Thermal shutdown indication
- Electrostatic discharge protection

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