



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

LV5680P — Monolithic Linear IC For Car Audio Systems Multi-Power Supply System IC

Overview

The LV5680P is a multi-power supply system IC that provides four regulator outputs and two high side switches as well as a number of protection functions including overcurrent protection, overvoltage protection and overheat protection. It is an optimal power supply IC for car audio and car entertainment systems and similar products.

Features

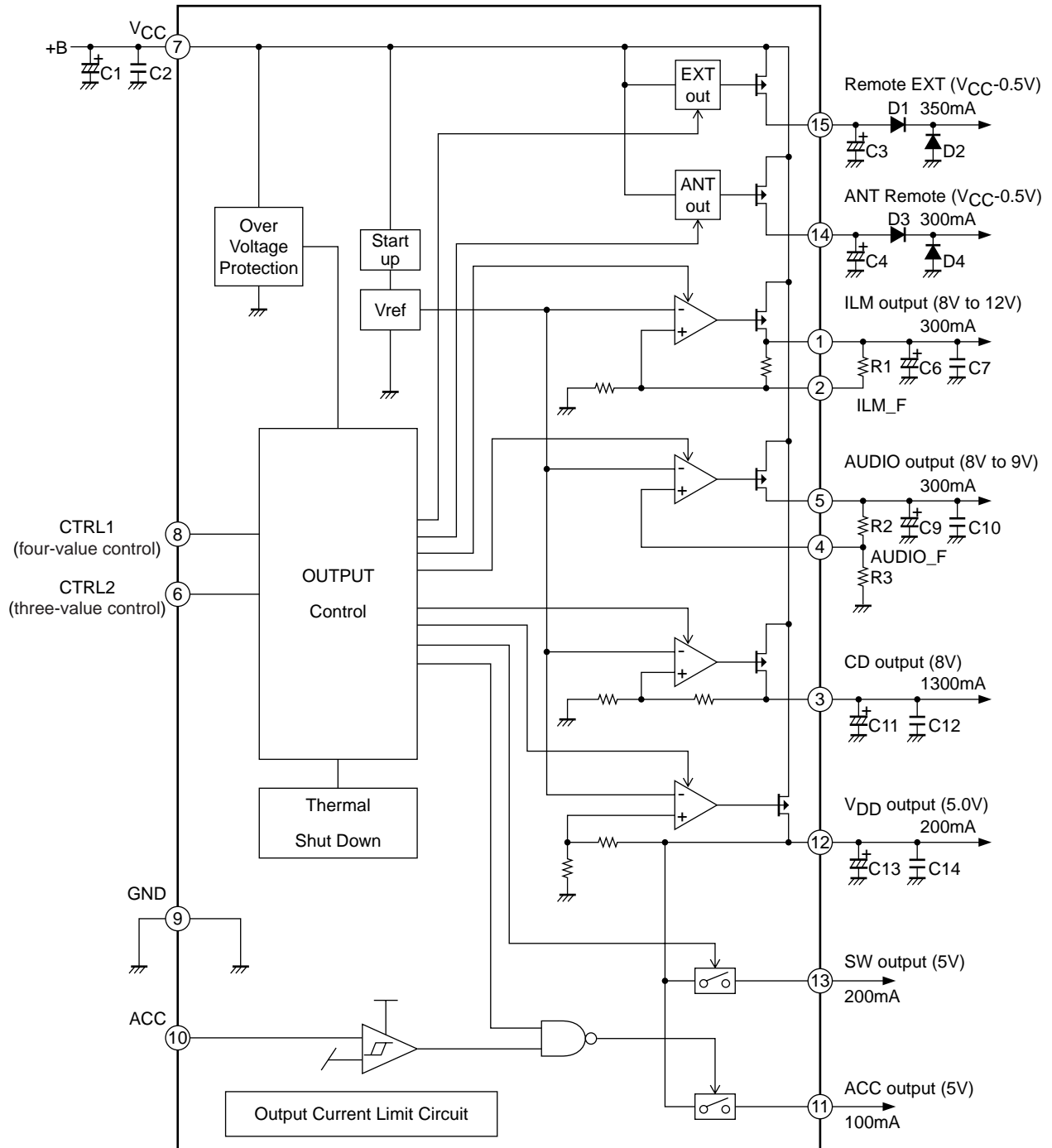
- Four regulator output systems
 - For microcontroller: 5.0V output voltage, 200mA maximum output current
 - For CD drive: 8.0V output voltage, 1300mA maximum output current
 - For illumination: 8 to 12V output voltage (output can be set with external resistors), 300mA maximum output current
 - For audio systems: 8 to 9V output voltage (output voltage can be set with external resistors), 300mA maximum output current
- Two V_{CC} -linked high side switch systems
 - EXT: 350mA maximum output current, 0.5V voltage difference between input and output.
 - ANT: 300mA maximum output current, 0.5V voltage difference between input and output.
- Two V_{DD} 5V-linked high side switch systems
 - SW5V: 200mA maximum output current, 0.2V voltage difference between input and output.
 - ACC (accessory voltage detection output): 100mA maximum output current, 0.2V voltage difference between input and output.
- Overcurrent protection function
- Overvoltage protection function, typ 21V (excluding V_{DD} 5V output)
- Overheat protection function, typ 175°C
- On-chip accessory voltage detection circuit
- P-channel LDMOS used for power output block

(Warning) The protector functions only improve the IC's tolerance and they do not guarantee the safety of the IC if used under the conditions out of safety range or ratings. Use of the IC such as use under over current protection range or thermal shutdown state may degrade the IC's reliability and eventually damage the IC.

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LV5680P

Block Diagram



Pin Function

Pin No.	Pin name	Description	Equivalent Circuit
1	ILM	ILM output pin ON when CTRL1 = M1, M2, H 12.0V/300mA	
2	ILM_F	ILM output voltage adjustment pin	

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