


Power Factor Correction Controller 0.09mA 10-Pin SSOP T/R

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| Manufacturer: | STMicroelectronics, Inc |
| Package/Case: | SOP10 |
| Product Type: | Power Management ICs |
| RoHS: | RoHS Compliant/Lead free  |
| Lifecycle: | Active |



Images are for reference only

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General Description

The L6564 device is a current mode PFC controller operating in transition mode (TM) and represents the compact version of the L6563S device as it embeds the same driver, reference and control stages in a very compact 10-pin SSOP10 package.

The highly linear multiplier, along with a special correction circuit that reduces crossover distortion of the mains current, allows wide range mains operation with an extremely low THD even over a large load range. The output voltage is controlled by means of a voltage mode error amplifier and an accurate (1% at $T_J = 25^\circ\text{C}$) internal voltage reference. The loop stability is optimized by the voltage feed-forward function ($1/\sqrt{2}$ correction), which in this IC uses a proprietary technique that considerably improves line transient response as well in case of mains both drops and surges (“bidirectional”). In addition to overvoltage protection able to control the output voltage during transient conditions, the IC also provides protection against feedback loop failures or erroneous settings. Other on-board protection functions allow brownout conditions and boost inductor saturation to be safely handled. The totem-pole output stage, capable of 600 mA source and 800 mA sink current, is suitable for the high power MOSFET or IGBT drive. This, combined with the other features and the possibility to operate with ST's proprietary fixed-off-time control, makes the device an excellent solution for SMPS up to 400 W that require compliance with the EN61000-3-2 and JEITA-MITI standards.

Key Features

- Fast “bidirectional” input voltage feed-forward ($1/\sqrt{2}$ correction)
- Accurate adjustable output overvoltage protection
- Protection against feedback loop disconnection (latched shutdown)
- Inductor saturation protection
- AC brownout detection
- Low ($\leq 100\mu\text{A}$) start-up current
- 6 mA max. operating bias current
- 1% (at $T_J = 25^\circ\text{C}$) internal reference voltage
- SSOP10 package

Recommended For You

L6574D

STMicroelectronics, Inc

SOP16

L6375S

STMicroelectronics, Inc

SOP8

L6201PS

STMicroelectronics, Inc

HSOP20

L6562N

STMicroelectronics, Inc

DIP8

L6384ED013TR

STMicroelectronics, Inc

SOP8

L6387ED

STMicroelectronics, Inc

SOP8

L6561D

STMicroelectronics, Inc

SOP-8

L6574

STMicroelectronics, Inc

DIP16

L6506D

STMicroelectronics, Inc

SOP20

L6395DTR

STMicroelectronics, Inc

SOP8

L6388ED013TR

STMicroelectronics, Inc

SOP-8

L6384ED

STMicroelectronics, Inc

SOP8

L6388ED

STMicroelectronics, Inc

SOP8

L6562AID

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SOP

L6718

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QFN56