

High Power Density AC/DC Chip Solution

Active Bridge functioning as an “Almost No Loss Ideal Diode Bridge”



PANJIT’s new active bridge controller, CMDRBR, is an innovative solution that outperforms traditional diode bridge rectifiers, leading the industry into a new era of improved power conversion efficiency. By using the CMDRBR to control the low on-resistance high-voltage power switch, the forward voltage drop of the rectifier can be greatly reduced and the heat dissipation concern can be alleviated. By replacing four traditional bridge diodes, CMDRBR effectively minimizes bridge diode forward conduction losses, enabling notable advancements in AC/DC power conversion performance.

In addition, With a remarkable no-load consumption of less than 20mW, CMDRBR stands as the optimal choice for applications with limited space that demand exceptional thermal dissipation solutions. Whether in compact electronic systems or space-constrained environments, CMDRBR flawlessly addresses power management challenges, ensuring optimal performance and reliability.

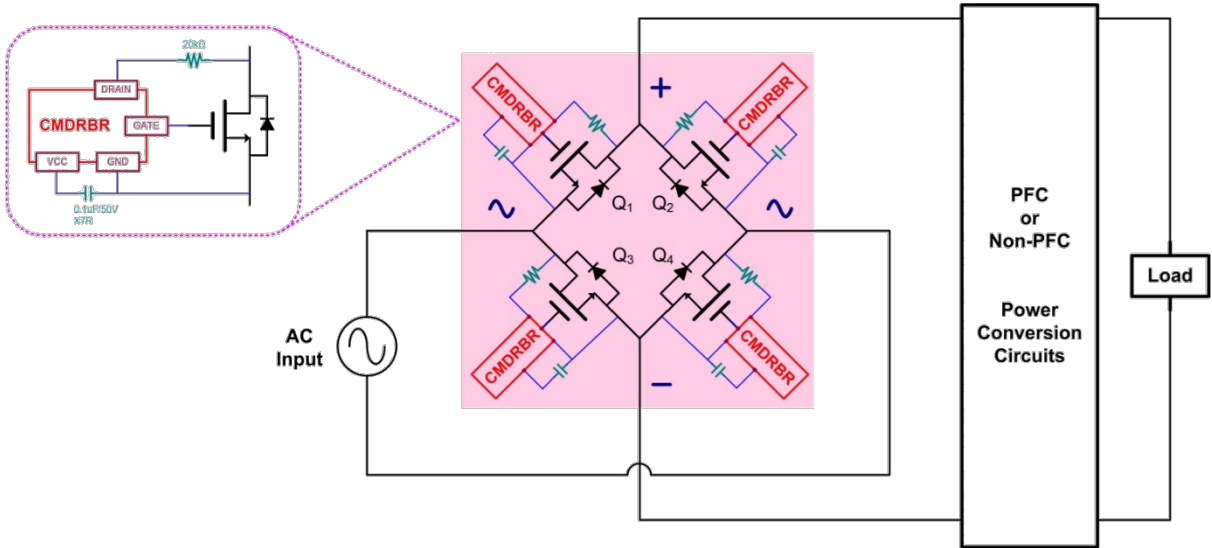
➤ Features

- No high-side driver needed
- Self-powered with no external power required
- No load consumption < 20mW
- Low forward-voltage drop
- Almost no power dissipation comparing to traditional bridge
- Easy implementation

➤ Application

- Server Power
- PD Charger / Power Adapter
- TV Power
- Power Supply Unit
- Network / Communication Power

➤ Applications Example: 180W/19V Adapter



Topology	Active Bridge
IC Solution	CMDRBR
IC Package	SOT-23 6L
Conditions	Tested with a 180W/19V Adapter
	Replaces 4 Bridge Diodes

➤ Performance

