



# SiRA99DP -30 V P-CHANNEL MOSFET

## THE LOWEST $R_{DS(on)}$ AND $R_{DS} - Q_g$ FOM IN ITS CLASS

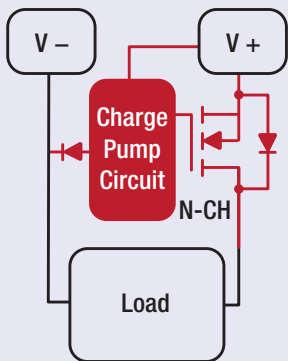
### BEST IN CLASS $R_{DS(on)}$

- Typical  $R_{DS(on)} = 1.3 \text{ m}\Omega$
- Maximum  $R_{DS(on)} = 1.7 \text{ m}\Omega$
- Minimizes  $I^2R$  voltage drop across power path
- Reduces conduction loss

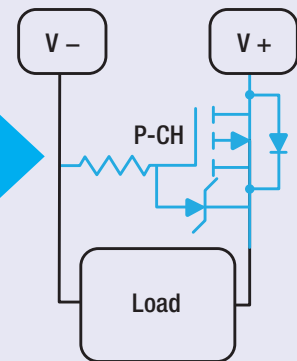
### REDUCE COMPONENT COUNT TO SIMPLIFY DESIGNS

- Compared to n-channel devices, eliminates the need for a drive circuit and charge pump
- Achieves high efficiency with less components
- Enables higher power density

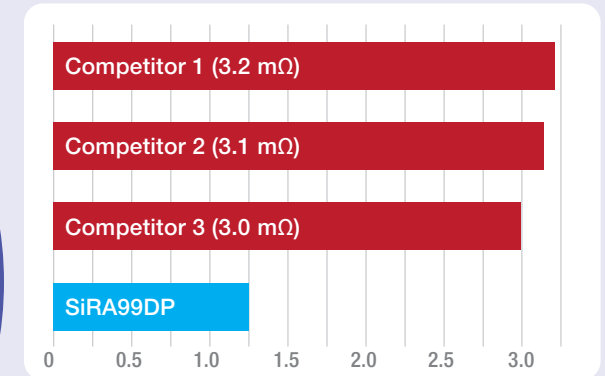
### SOLUTION WITH N-CHANNEL MOSFET



### SOLUTION WITH P-CHANNEL MOSFET



### TYPICAL $R_{DS(on)}$ (mΩ) AT $V_{GS} = 10 \text{ V}$



### EXCELLENT $R_{DS} - Q_g$ FOM OPTIMIZED FOR SWITCHING

- Features best in class  $R_{DS} - Q_g$  FOM
- Very low  $Q_{gd}$ , with short Miller plateau
- $Q_{gd}/Q_{gs}$  ratio < 1
- Reduces conduction loss

### APPLICATIONS

- Power adapter switch and load switch
- OR-ing
- Battery and circuit protection
- Motor drive control

