

30V P-Channel MOSFET for High-Side Power Paths

30V P-CHANNEL MOSFET FOR HIGH-SIDE SWITCHING



Features

- 30 V P-Channel MOSFET for high-side switching
- Ultra-low $R_{DS(on)}$: 3.0 m Ω @ $V_{GS} = -10V$
- Handles up to 40A (with proper thermal design)
- Trench LV tech for high efficiency
- Excellent thermal performance: $R_{\theta JC} = 0.82^{\circ}C/W$
- Compact DFN5060
- 30V VDS for 12V rails & transient protection



Benefits

Maximize efficiency and reliability: Lower losses and better heat dissipation keep systems running cooler and more efficient under heavy loads.

Simplify design and save space: Eliminate extra high-side drivers for a cleaner layout and reduced board footprint in demanding applications.

Applications



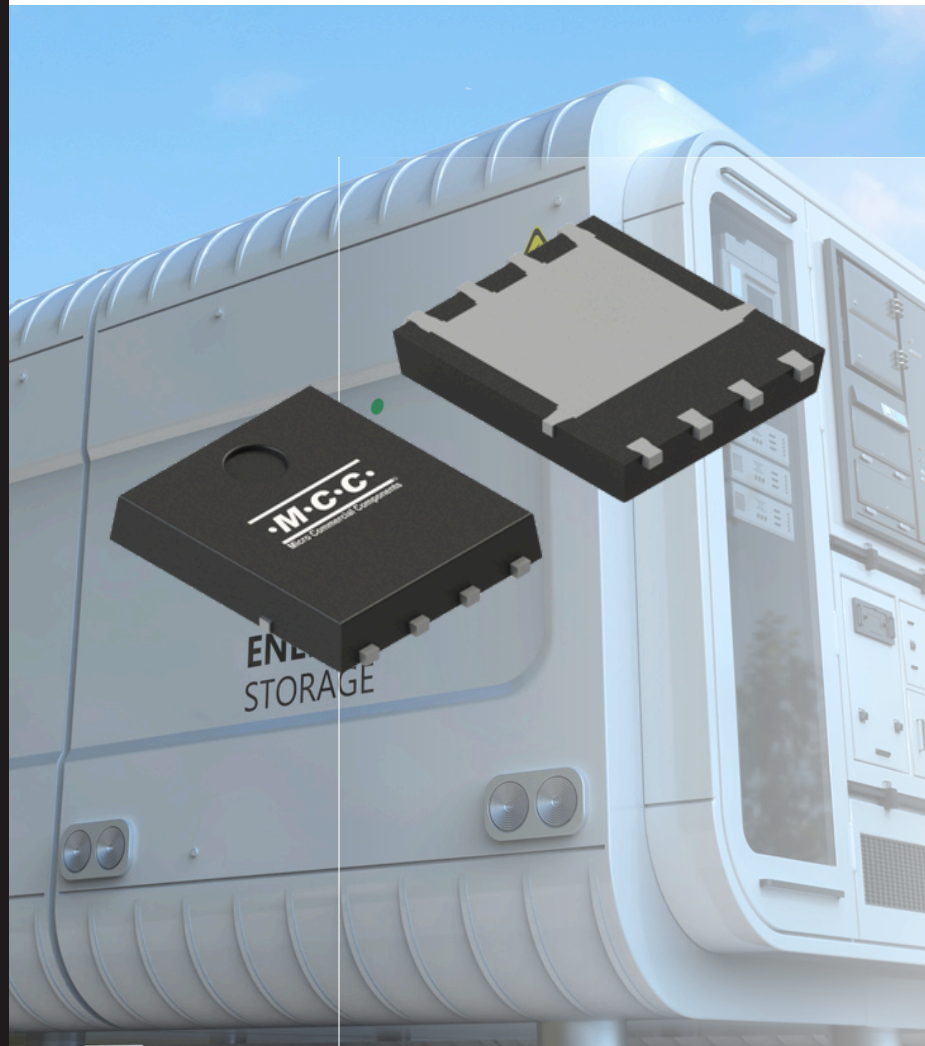
Battery
Management
Systems



Power
Management
Units



Redundant
DC
supplies



3.0 m Ω $R_{DS(on)}$, 40 A Capability in a Compact DFN5060 Package with Trench LV Efficiency

Ultra-Low RDS(on) in a Compact DFN5060 Package



Product Attributes, Parametrics & Datasheets

Product	Type	Package	Drain-Source Voltage VDS (V)	Gate-Source Voltage VGS (V)	Drain-Source On-Resistance RDS(ON) Max @ VGS=10V (Ω)	Mounting Type	Datasheet
MCAC3D0P03L	P-Channel Power MOSFET	DFN5060	-30	±20	0.003	Surface mount	Info

Applications



Enterprise & Data Infrastructure

- Power distribution and load switching in servers, storage systems, and networking equipment
- OR-ing and hot-swap paths in PSUs and rack systems
- Power rail gating in VRMs and backplane control



Energy & Battery Systems

- Battery Management Systems (BMS) for pack/load switching
- UPS and portable power station high-side control
- Solar microinverter DC bus management



Consumer & Embedded Electronics

- Power Management Units (PMUs) in compact devices
- High-side switching for SBCs, smart home hubs, and NAS systems
- Rail selection in DC-DC converters for home appliances



Industrial & Automation

- Motor drive high-side supply switching
- Power rail control in PLCs and industrial PCs
- Protection and OR-ing in redundant DC supplies

CONTACT MCC TO REQUEST A SAMPLE

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