Power Density Redefined: 80 V N-Channel MOSFET in TOLL-8L

80V N-CHANNEL MOSFET

Features

- Ultra-low RDS(on): 1.0 mΩ for minimal losses
- High current: 320 A continuous capability
- 80 V rating: Ideal for 48 V systems with margin
- Fast switching: Split-gate trench design reduces EMI
- Compact package: TOLL-8L for high power density
- Strong thermal: RθJA ≈ 40°C/W; Tj(max) = 175°C
- Optimized for high frequency: Lower switching losses
- Rugged reliability: Handles demanding cycles

Benefits

Boost efficiency & save space: Lower losses and smaller system footprint with ultra-low RDS(on) and compact TOLL-8L package.

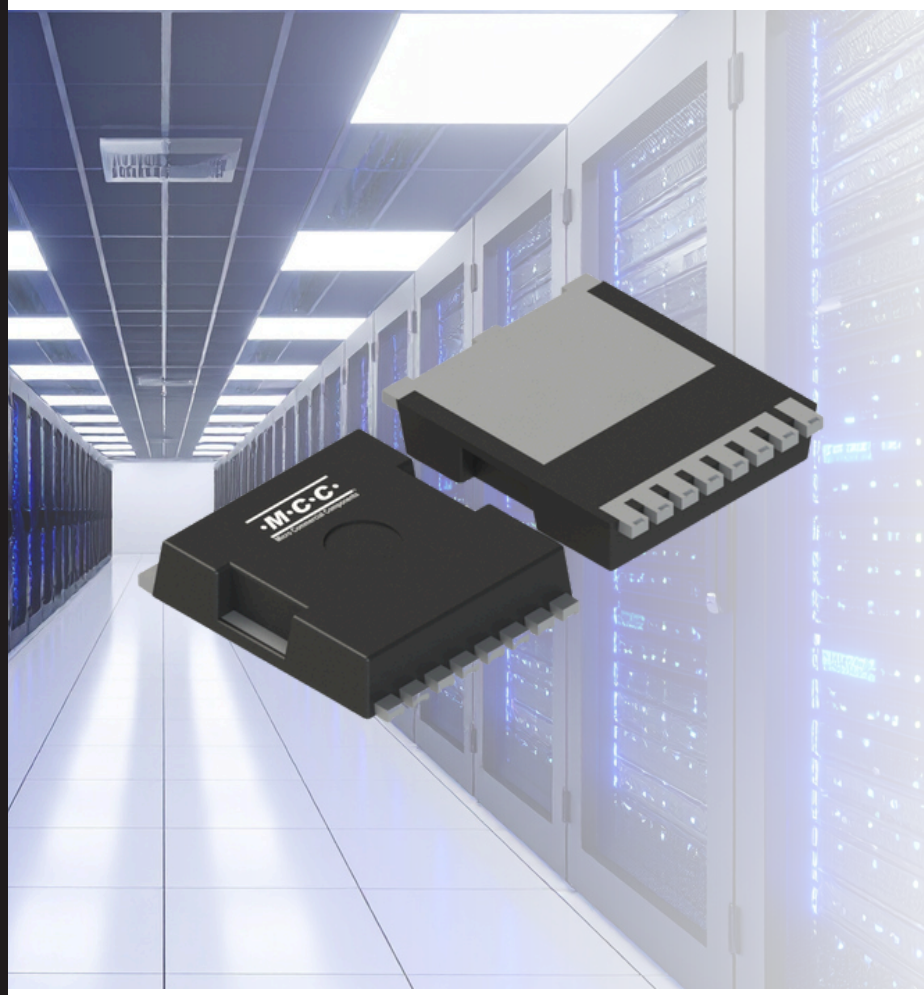
Ensure reliability: Rugged 80 V rating and strong thermal performance for demanding environments.

Applications

Core network equipment

Factory controllers

Solar inverters



Ultra-Low RDS(on) for High-Current, Fast-Switching Designs

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80V N-Channel MOSFET

Compact, Efficient, and Rugged for Demanding Power Stages

Product Attributes, Parametrics & Datasheets

Product	Type	Package	Drain-Source Voltage VDS (V)	Drain-Source On-Resistance RDS (ON) Max @VGS =10V (Ω)	Mounting Type	Datasheet
MCTL1D0N08Y	N-channel MOSFET	TOLL-8L	80	1.0 mΩ	Surface mount	Info

Applications

Telecom and Networking Infrastructure

- Rectifiers, RRU/BBU power systems
- PoE++ injectors and edge/core network equipment
- High-current DC-DC converters for UPS and backup power

Computing and Data Centers

- SMPS for server PSUs (PFC and DC-DC stages)
- High-current bus converters and VRMs
- Power delivery for switches, routers, and storage systems

Industrial Automation and Motor Control

- Motor drives (BLDC, PMSM, induction)
- SMPS for PLCs, robotics, and factory controllers
- DC-DC converters for machine power rails

Energy and Storage Systems

- Solar and hybrid inverters
- Battery management systems and bidirectional DC-DC converters
- Microgrid and ESS-coupled power conversion

CONTACT MCC TO REQUEST A SAMPLE

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