

Compact 60V Dual N-Channel MOSFET with Low Loss Performance

60V DUAL N-CHANNEL MOSFET



Features

- Dual independent 60V N-channel MOSFETs in one device
- Ultra-small SOT-563 package to save board space
- Low $R_{ds(on)}$ for reduced power loss
- Low gate threshold for easy drive from low-voltage logic
- Integrated ESD protection on the gates
- Modern trench LV MOSFET process for stable performance



Benefits

Smaller designs: Reduces component count and PCB space with a dual MOSFET in one ultra-compact package

Higher efficiency: Low $R_{ds(on)}$ and low gate threshold minimize power loss, even with low drive voltages

Applications



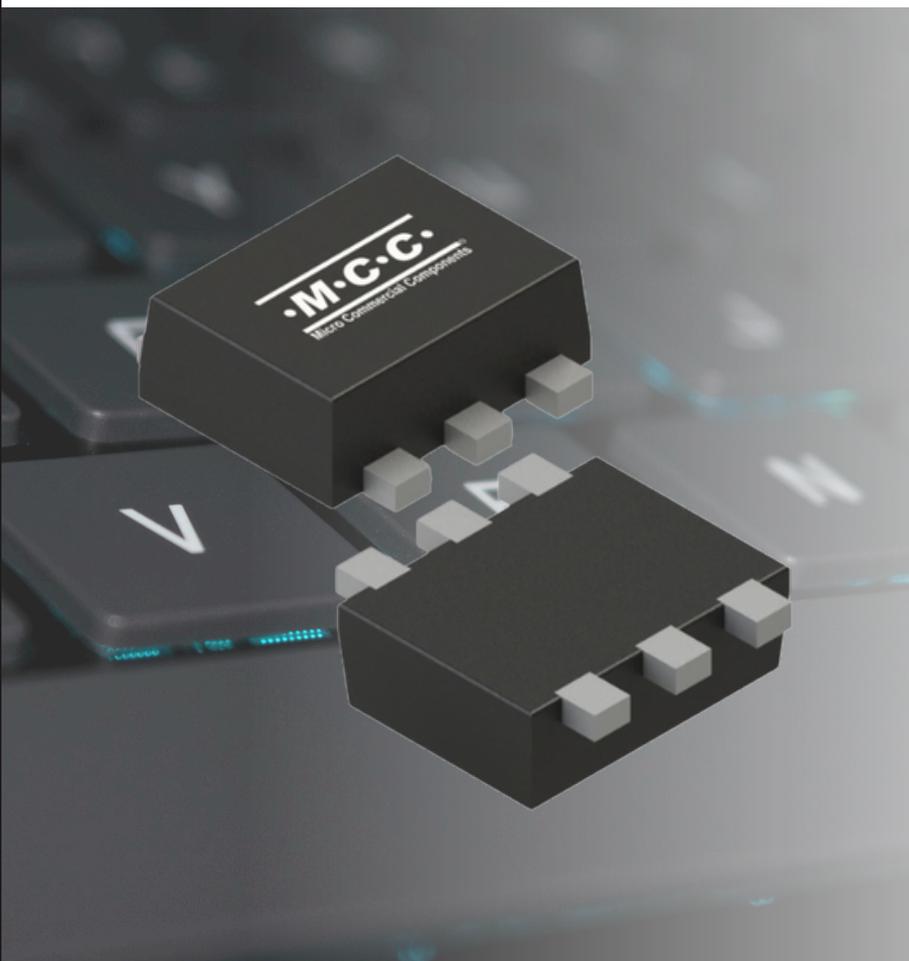
Load switching in laptops



Power/load switching

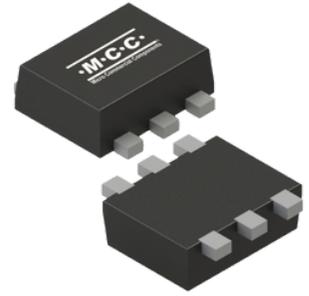


Control signal gating



Ultra-Miniature SOT-563 Package for High-Density Switching and Level Shifting

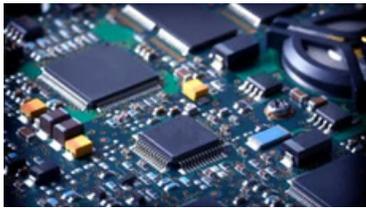
Compact Dual N-Channel MOSFET for High-Density Designs



Product Attributes, Parametrics & Datasheets

Product	Type	Package	Number of Functions	Channel	Drain-Source Voltage VDS (V)	Gate-Source Voltage VGS (V)	RDS(ON) Max @VGS =10V(Ω)	Datasheet
BSS138KV	Small Signal MOSFET	SOT-563	Dual	N+N	60	±20	3.3	Info

Applications



Consumer Electronics & Computing

- Load switching in laptops, tablets, set-top boxes, gaming consoles, and TVs
- Level shifting between MCUs, FPGAs, and peripheral buses (I²C, SPI, UART)
- Signal gating and multiplexing for audio paths, microphone/speaker selection, and multimedia routing
- Signal switching in smartphones, e-readers, and portable media players



Industrial, Automation & Instrumentation

- Load switch for sensor modules, PLC I/O cards, and control boards
- Level translation in mixed-voltage industrial communication and control interfaces
- Signal multiplexing for sensor lines, ADC inputs, and diagnostic test points
- Switching functions in handheld meters, field test tools, and portable instruments



IoT, Smart Home & Connected Devices

- Power/load switching in smart home nodes, wireless sensor networks, and gateways
- Logic level shifting between low-power MCUs and radio/communication modules
- Signal gating in battery-operated IoT sensors and edge devices



Communications & RF Interfaces

- Level translation in mixed-voltage RF front-ends and modem interfaces
- Control signal gating for radio enable/disable lines and configuration pins

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mccsemi.com | +818.701.4933

