

Very Ultra-Low On-Resistance Load Switch

Features

- Integrated Single Channel Load Switch
- Input Voltage Range: 0.8V to 5.5V
- Ultra-low ON-Resistance
 - M5938A = 5.5 mΩ
 - M5938B = 11 mΩ
 - M5938C = 22 mΩ
- Continuous Switch Current
 - M5938A = 10A
 - M5938B = 6A
 - M5938C = 4A
- Low Threshold Control Inputs
- Adjustable Slew-rate Control
- Output Discharge Path
- 8-pin TDFN, MSOP & 6-pin SOT Package

General Description

The M5938A/B/C is a N-channel MOSFET power switch designed for high-side load-switching applications, and the device has a typical $R_{DS(ON)}$ of 5.5mΩ / 11mΩ / 22mΩ and the output current is limited to 10A / 6A / 4A.

In the M5938A/B/C, a discharge path is added for quick output discharge when the switch is turned off. The rise time of the device is internally controlled in order to avoid in-rush current and can be adjusted using a ceramic capacitor on the GATE pin.

The M5938A/B/C is available in TDFN3X3-8, MSOP-8 (FD) and SOT-23-6 package.

Applications

- Notebooks / Netbooks
- Industrial Systems
- Telecom Systems

Ordering Information

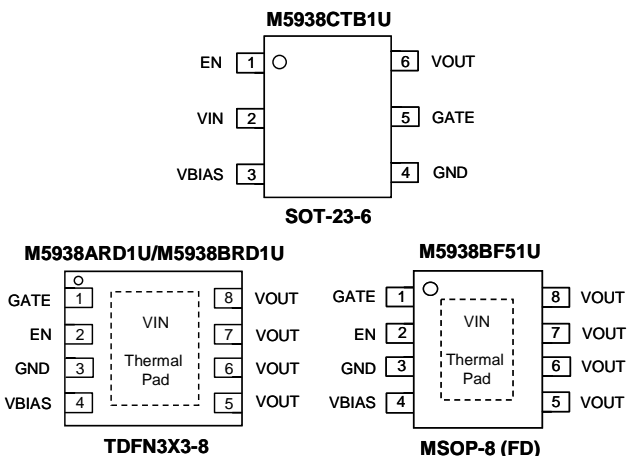
| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Green) |
|--------------|---------|---------------|-----------------|
| M5938ARD1U | 5938A | -40°C to 85°C | TDFN3X3-8 |
| M5938BRD1U | 5938B | -40°C to 85°C | TDFN3X3-8 |
| M5938BF51U | 5938B | -40°C to 85°C | MSOP-8 (FD) |
| M5938CTB1U | 598Cx | -40°C to 85°C | SOT-23-6 |

Note: RD: TDFN3X3-8 F5: MSOP-8 (FD) TB: SOT-23-6

1: Bonding Code

U: Tape & Reel

Pin Configuration



Typical Application Circuit

