



New Product Announcement

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DML3006LFDS DML3009LDC

High Current Power Delivery Load Switches

The DML3006LFDS and DML3009LDC are high current single channel load switches, capable of driving up to 10A and 20A load respectively. They meet the demands of notebook, tablet computers, set-top boxes, servers, gateways, telecom, networking, medical and industrial equipment.

The DML3006LFDS and DML3009LDC load switch provide a component and area reducing solution for efficient power domain switching with inrush current limit via soft-start. In addition to integrated control functionality with ultra low on-resistance, these devices offer system safeguards and monitoring via fault protection and power good signaling.

This cost-effective solution is ideal for power management and hot-swap applications requiring low power consumption in a small footprint.



The Diodes Advantage

The 10A DML3006LFDS and 20A DML3009LDC are load switches designed to control, protect and recover power delivery integrated circuits.

▪ **Low On-State Resistance & Thermally Efficient**

DML3006LFDS $R_{DS(ON)} = 8.6m\Omega @ V_{CC} = 5V$ and $V_{IN} = 1.8V$.

DML3009LDC $R_{DS(ON)} = 4.8m\Omega @ V_{CC} = 5V$ and $V_{IN} = 1.8V$.

The thermally efficient ensures sufficiently low surface temperature during operation.

▪ **Comprehensive Protection & Recovery Mechanisms**

To protect the device and the system from possible fault, the comprehensive mechanism built-in comprises of: input under-voltage lock-out, thermal shut-down, over-current and short-circuit protection.

▪ **Package – DML3006 DFN2020-8 / DML3009 DFN3030-12**

Low-profile, small footprint industry standard package.

Applications

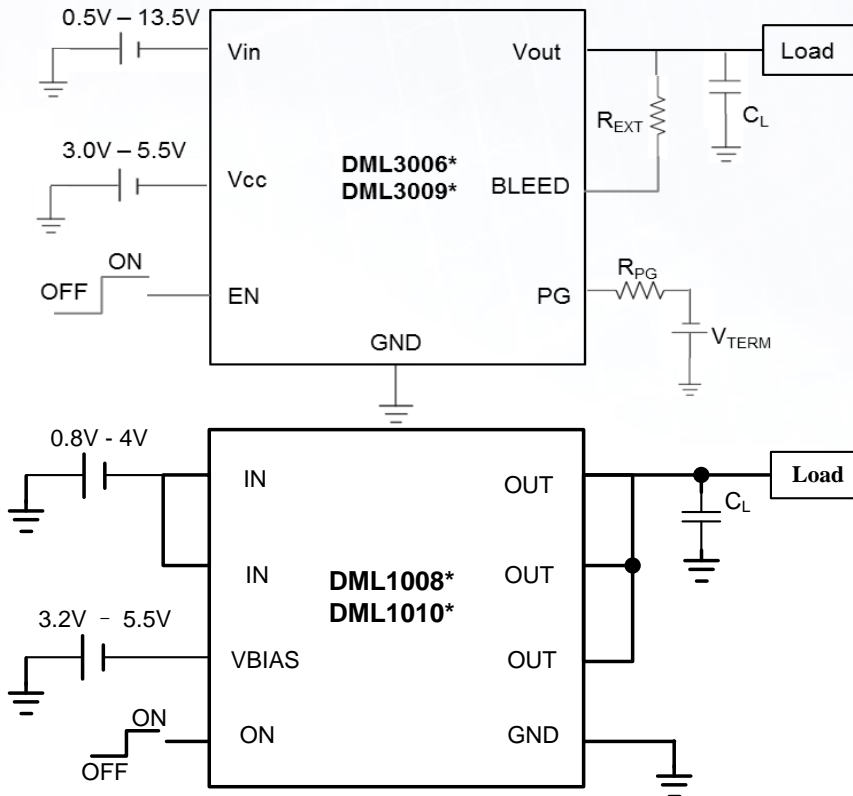
- Portable Electronics
- Notebook/Tablet Computers
- Set-Top Boxes, Servers, and Gateways
- Telecom, Networking, Medical, and Industrial Equipment
- Hot-Swap Devices and Peripheral Ports



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DML3006LFDS
DML3009LDC

Typical Application Circuit



DML300x Product Specification Table

Part Number	V _{in} (min) / V _{in} (max) (V)	Load Current I _{max} (A)	R _{DS(on)} (mΩ) (typ) V _{in} =1.8V V _{cc} =5V	Rise Time (μS) V _{in} =1.8V V _{cc} =5V	Output Discharge Resistance (Max) (Ω)	Quiescent Current (μA)	Package
DML3006LFDS	0.5 / 13.5	10.5	8.6	190	130	310	V-DFN2020-8
DML3009LDC	0.5 / 13.5	20	4.8	370	130	310	V-DFN3030-12

DML100x Product Specification Table

Part Number	V _{in} (min) / V _{in} (max) (V)	Load Current I _{max} (A)	R _{DS(on)} (mΩ) (typ) V _{in} =1.05V V _{bias} =5V	Rise Time (μS) V _{in} =1.05V V _{bias} =5V	Output Discharge Resistance (Max) (Ω)	Quiescent Current (μA)	Package
DML1008LDS	0.8 / 4	6	8	16	200	35	V-DFN3030-8
DML1010FDK	0.8 / 4	6	8	16	200	35	V-DFN2020-8