

# Power ICs.....

## DC-DC Converter Power ICs

### Outline

The MD Series is a non-isolated, PWM control stepdown DC-DC converter power IC whose MOSFET and drive circuit IC chip integration eliminates the complexity of power supply circuit design. Two rectification systems are available: flywheel Schottky diode type and highly efficient synchronous rectification MOSFET type. A high-performance power supply can be easily realized by choosing a suitable MD chip. The MD Series is available in SMD type HSOP28, SSOP32, LSSOP26, and SOP8 packages.

### Features

#### 1. High-efficiency

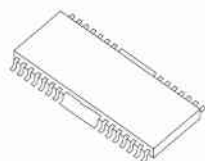
The MD Series consists of a matched control IC and main switching MOSFET in a single package, which allows the construction of a highly efficient power supply with little switching loss and wiring loss.

#### 2. Switching Frequency

Choose the switching frequency matched to the usage conditions from among 250kHz fixed type, 100kHz/300kHz switched type, and 100kHz to 500kHz adjustable type.

#### 3. Protection Functions

The MD Series has overcurrent protection, thermal shutdown, undervoltage lockout (UVLO) and etc.



HSOP28



SSOP32



LSSOP26



SOP8

Type No.	Input Voltage [V]	Output Voltage [V]	Output Current [A]	Frequency [kHz]	Operation Temp [°C]	Rectification System	Outline	
							Package	Fig.
☆MD5001T	4.5 to 14	0.8 to 12 *2	0 to 1	100 to 500 *4	-40 to 85	Fly wheel SBD	SOP8	90
MD3221N	4.5 to 20	2.5/3.3 *1 0.8 to 14 *2	0 to 3	100/300 *3	-30 to 85	Synchronous	SSOP32	83
☆MD3221R		0.8 to 14 *2					LSSOP26	84
MD3222N	8 to 20	2.5/3.3 *1 0.8 to 14 *2	0 to 6	250	-10 to 80	Fly wheel SBD	SSOP32	83
MD1222N		2.5 to 12 *2	0 to 5				HSOP28	81
MD1320F	12 to 30	3.3/5 *1	0 to 3	250	-30 to 85	Synchronous	SSOP32	83
MD1322F		2.5 to 12 *2	0 to 1.5					
MD1320N	8 to 30	3.3/5 *1	0 to 1.8	100 to 500 *4	-30 to 85	Fly wheel SBD	SSOP32	83
MD1322N		2.5 to 12 *2	0 to 5					
☆MD1323R	8 to 30	0.8 to 12 *2	0 to 3	100 to 500 *4	-30 to 85	Synchronous	SSOP32	83
☆MD1324R		2.5 to 12 *2						
☆MD1333N	8 to 40	3.3/5 *1	0 to 3	250	-30 to 85	Synchronous	SSOP32	83
MD1421N		2.5 to 12 *2						
MD1422N	8 to 40	2.5 to 12 *2	0 to 3	100 to 500 *4	-30 to 85	Fly wheel SBD	HSOP28	81
MD1423N		2.5 to 12 *2						
☆MD1423R	8 to 40	2.5 to 12 *2	0 to 3	100 to 500 *4	-30 to 85	Synchronous	SSOP32	83
☆MD1424R		0.8 to 12 *2						
MD1620F	12 to 57	5	0 to 2	250	-10 to 80	Fly wheel SBD	HSOP28	81
MD1622N	8 to 57	2.5 to 12 *2	0 to 1.2	250	-30 to 85	Fly wheel SBD	SSOP32	83

☆: New product

\* 1: Selectable output voltage 3.3V/5V

\* 2: Adjustable output voltage

\* 3: Selectable 100k/300kHz

\* 4: Adjustable from 100k to 500kHz