

Power Supplies/Energy Devices

Eco-friendly and high quality power supplies



Summary

To meet consumer needs Murata offers power supply products and energy devices that can be used with a variety of equipment, such as video equipment, household information appliances, and communication/transfer equipment. Murata provides standard and customized products using highly reliable, Murata-made components utilizing advanced design and high-density packaging technology. The Electrical Double Layer Capacitor is an energy device that can provide various benefits such as downsizing, efficiency, and high functionality.

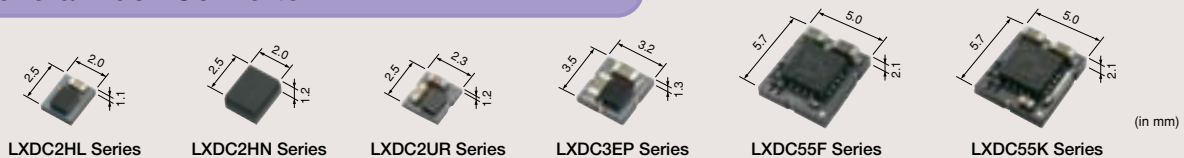
Lineup

- Micro DC-DC Converters
- DC-DC Converters
- High Voltage Transformers
- High Voltage Power Supplies
- Switching Power Supplies
- Electrical Double Layer Capacitors

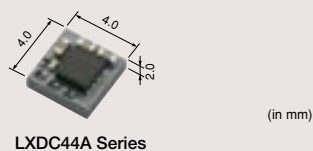
Micro DC-DC Converters

Murata's micro DC-DC converters are small power modules that utilize a unique ferrite substrate with an embedded power inductor, and incorporate the I/O capacitors onto the same package. Ultra-compact size and superior noise suppression make these devices ideal for cellular/smart phones, tablets, wearable devices, communication applications, and portable products.

General Buck Converter



Boost Converter



For more details on our product lineup, please refer to our website.
Product Search ⇒ <http://search.murata.co.jp/>

Detailed Catalogs

For more details, please refer to the PDF catalogs on our website.



- High Performance Electrical Double Layer Capacitor DMF Series
Cat. No. O83E
- High Performance Electrical Double Layer Capacitor DMT Series
Cat. No. O84E

DC-DC Converters

DC-DC Converters are vital to the demands of electronic equipment.

Murata offers DC-DC Converters that set the standard for miniaturization, low profile, high efficiency, power-saving, low-noise power supplies. Murata provides standard products and customized products, ultra-low-profile products, and products for FPGA.

Non-isolated Type



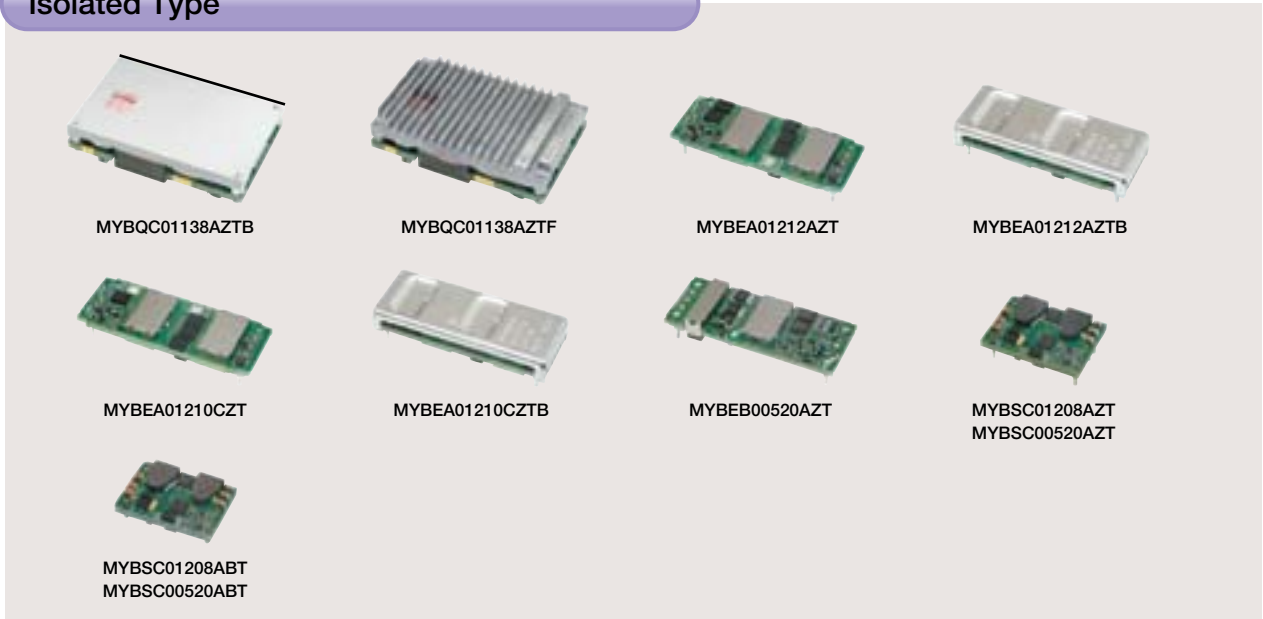
Part Number	Package	Input Voltage (V)	Nominal Output Power (W)	Output Voltage (V)	Current (A)	Efficiency (%)	Size (mm) L×W×H
MPDRX002S	SMD	3 to 5.5	28.8	0.8 to 1.8	16	90	33×13.5×8.5
MPDRX103S	SIL	10.8 to 13.2	28.8	0.8 to 1.8	16	86	50.8×5.8×14
MPDRX312S	SMD	3 to 5.5	28.8	0.8 to 1.8	16	86.5	27.8×15.4×4.2
MPDTY461S	SMD	4.5 to 14	94	1.6 to 3.63	26	90.5	33.02×13.46×4.2
MPDTY462S	SMD	4.5 to 14	43	0.75 to 1.65	26	85.5	33.02×13.46×4.2
MYGTM01210BZN	SIL	17 to 40	120	5 to 12	10	97.3	40×40.3×29.2
MYGTR01205BZN	SIL	17 to 40	36	5 to 12	3 to 5.2	93	25.1×12×27
MYSSM0123EBENL	SMD	14 to 40	42	5 to 12	3.5	96	30.2×20.9×12
MYUSP3R303FMP	SMD	3 to 5.5	9.9	0.7 to 3.3	3	94	11×8.5×5.6
OKL-T/3-W5N-C	SMD	2.7 to 5.5	10.9	0.6 to 3.63	3	95.3	12.2×12.2×6.2
OKL-T/6-W12P-C	SMD	4.5 to 14	33	0.591 to 5.5	6	93	12.2×12.2×7.2
OKL2-T/12-W5N-C	SMD	2.4 to 5.5	39.6	0.6 to 3.63	12	94	20.32×11.43×8.55
OKL2-T/12-W12N2-C	SMD	4.5 to 14	60	0.69 to 5.5	12	95	20.32×11.43×8.55
OKL2-T/20-W5N-C	SMD	2.4 to 5.5	66	0.6 to 3.63	20	93.1	33.02×13.46×8.75
OKL2-T/20-W5P-C	SMD	2.4 to 5.5	66	0.6 to 3.63	20	93.1	33.02×13.46×8.75
OKL2-T/20-W12N2-C	SMD	4.5 to 14	100	0.69 to 5.5	20	94	33.02×13.46×8.75
OKL2-T/20-W12P-C	SMD	4.5 to 14	110	0.69 to 5.5	20	94	33.02×13.46×8.75

These are just a few examples of our large assortment of power products.



For more details on our product lineup, please refer to our website.
Product Search ⇒ <http://search.murata.co.jp/>

Isolated Type








Part Number	Package	Input Voltage (V)	Nominal Output Power (W)	Output Voltage (V)	Current (A)	Efficiency (%)	Isolation Voltage (VDC)	Footprint (Brick)	Size (mm) L×W×H
MYBQC01138AZTB	Insert	48V (36V to 75V)	400	10.6±6%	38	95	1500	1/4	58.4×36.8×14 max.
MYBQC01138AZTF	Insert	48V (36V to 75V)	400	10.6±6%	38	95	1500	1/4	58.4×36.8×17 max.
MYBEA01212AZT	Insert	48V (36V to 75V)	140	12±3%	12	92.5	1500	1/8	58.4×22.8×9 max.
MYBEA01212AZTB	Insert	48V (36V to 75V)	140	12±3%	12	92.5	1500	1/8	58.4×22.8×9 max.
MYBEA01210CZT	Insert	24V (18V to 36V)	120	12±3%	10	93	1500	1/8	58.4×22.8×9 max.
MYBEA01210CZTB	Insert	24V (18V to 36V)	120	12±3%	10	93	1500	1/8	58.4×22.8×9 max.
MYBEB00520AZT	Insert	48V (36V to 75V)	100	5±3%	20	93	1500	1/8	57×22.8×10 max.
MYBSC01208AZT	Insert	48V (36V to 75V)	100	12±3%	8	92.5	1500	1/16	33×23.2×10 max.
MYBSC01208ABT	SMD	48V (36V to 75V)	100	12±3%	8	92.5	1500	1/16	33×23.2×10 max.
MYBSC00520AZT	Insert	48V (36V to 75V)	100	5±3%	20	92	1500	1/16	33×22.8×10 max.
MYBSC00520ABT	SMD	48V (36V to 75V)	100	5±3%	20	92	1500	1/16	33×22.8×10 max.

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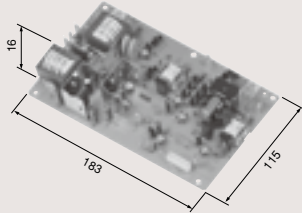
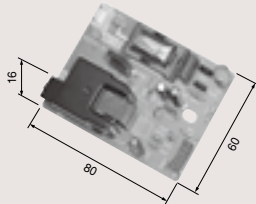
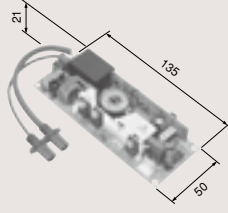
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High Voltage Transformers

						
QF Type	QP Type	WP Type	NU Type	WR Type		
Series	Type	Features	Output Voltage Vout	Output Current Iout	Drive Frequency	Dimensions (mm) L×W×H
MSH	QF	Small Size	Max. 6kV	0.3mA	35 to 70kHz	39×24×13
	QP	Standard	Max. 8.5kV	0.4mA	35 to 70kHz	41×26×16
	WP	Low Profile	Max. 8.5kV	0.4mA	35 to 70kHz	44×27×11
	NU	High Power	Max. 8.5kV	1mA	30 to 70kHz	44×27×17
	WR	High Voltage	Max. 13kV	0.5mA	30 to 70kHz	49×25×27

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High Voltage Power Supplies

			(in mm)			
MPH7000 Series	MPH4000 Series (for Air Purifier/Air Conditioner)	MPL3000 Series (AC/DC Ballast)				
Series	Input Voltage Vin	Power Supply Type	Output Voltage Vout	Output Current Iout	Adjustable Range	
MPH7000	24V DC	DC Constant Current	(6kV)	250μA	Iout: 200 to 300μA	
		DC Constant Voltage	0.6kV	(1μA)	Vout: 550 to 650μV	
		Switching	DC Constant Current	(-1.5kV)	-3μA	Iout: -2 to -4μA
			DC Constant Voltage	1.5kV	(0.5μA)	Vout: 1.4 to 1.6kV
		AC Constant Voltage	1.5kV rms	(250μA rms)	Vout: 1.3 to 1.7kV rms	
MPH4000 (for Air Purifier/Air Conditioner)	24V DC	DC Constant Voltage	±6kV	±400μA	—	
		DC Constant Current	(±6kV)	±400μA	—	
Series	Applications	Input Voltage Vin	Output Power	Other Specification		
MPL3000 (AC/DC Ballast)	Projector	250 to 420V DC	to 350W	For extra-high pressure mercury lamp		

For more details on our products, please contact us.

Switching Power Supplies

(in mm)

Applications	Input Voltage	Output Voltage	Safety Standard	EMI Standard	Remarks
Medical Equipment	90 to 264V AC	5V 12V 24V 48V	UL, IEC	CISPR	
SOHO Equipment	90 to 264V AC	5V 12V 24V 48V	UL, IEC	CISPR	Models that provide a power-saving standby mode are also available.
Industrial and Measurement Equipment	90 to 264V AC	24V	UL, IEC	VCCI	150W/300W
Energy Management Equipment	60 to 225V AC	3.3V 24V	UL, IEC	VCCI, CISPR	
PBX	90 to 264V AC	12V 48V	UL, IEC	CISPR	Operating Ambient Temperature 80°C
LED Lighting	90 to 264V AC	24V	IEC, PSE	VCCI, CISPR	PWM Dimming, Accepted for DALI, UART

For more details on our products, please contact us.

Electrical Double Layer Capacitors

Electrical Double Layer Capacitors (EDLCs), often referred to as supercapacitors, are energy storage devices with high power density characteristics. Murata has focused its R&D efforts on electrical double layer energy devices, and also established collaboration with the component design and manufacturing firm CAP-XX Limited (CAP-XX). This has led to Murata's development of an EDLC technology resulting in low ESR and high capacitance in a very small package.

(in mm)

Series	Main Part Number	Thickness (mm)	Capacitance (mF)	Rated Voltage (V)	ESR (mΩ)	Operating Temperature (°C)
DMF (High Peak Power Type)	DMF3Z5R5H474M3DTA0	3.2	470	5.5 (Peak Voltage)	45	-30 to 70
	DMF4B5R5G105M3DTA0	3.7	1000	5.5 (Peak Voltage)	40	-30 to 70
DMT (Application Specific Type)	DMT334R2S474M3DTA0	3.5	470	4.2	130	-30 to 85

➔ For more details on each series, please refer to our website.
Product Search ⇒ <http://search.murata.co.jp/>

➔ For Ionizer Modules, please refer to p. 74.