MICRODC
Industry Power Family

3B-XESR&3F-XESR&3H-XESR Series

Isolated 3W Single Output DC/DC Converters

FEATURES

- ◆REGULATED SINGLE OUTPUT
- ◆12 PIN SIP PACKAGE
- ◆LOW RIPPLE & NOISE
- ◆HIGH EFFICIENCY UP TO 75%
- ◆INPUT/OUTPUT ISOLATION: 1000, 3000 & 6000VDC
- ◆OPERATING TEMPERATURE: -25°C~ +71°C
- ◆PIN-COMPATIBLE WITH MULTIPLE MANUFACTURERS

MODEL SELECTION

3B①24②05③X④ES⑤R⑥

①Product Series ②Input Voltage
③Output Voltage ④3Fixed Input
⑤EXTEND SIP ⑥ Regulated Output

APPLICATIONS

Our series is a 3Family o3F cost e3F3Fective 3W single output DC-DC converters.These converters combine miniature package in a 12-pin SIP compatible case with high performance features such as 1000, 3000 & 6000VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line / load regulation. Seventy two models operate from input voltages of 5, 12 & 24VDC with producing output voltage levels of 3.3, 5, 7.2, 9, 12, 15, 18, 24VDC.

High performance features include high efficiency operation up to 70% and output voltage accuracy of ±2 maximum. Standard features include an input range of ±10% tolerance and low output noise and ripple. All models are package in a low profile 31.80x8.60x13.47mm 12 pin SIP non-conductive black plastic case. Operation is specified over the full operating temperature range of -25℃ to +71℃ with no derating required. Cooling is by free-air convection.

RoHS MICRODC Green Technology

CE REACH

MODELS Single output

Models			Input Voltage	Ouput Voltage	Ouput Current max.
Isolation 1000VDC	Isolation 3000VDC	Isolation 6000VDC			
3B0503XESR	3F0503XESR	3H0503XESR	5V±10%	3.3VDC	800mA
3B0505XESR	3F0505XESR	3H0505XESR		5VDC	600mA
3B0507XESR	3F0507XESR	3H0507XESR		7.2VDC	417mA
3B0509XESR	3F0509XESR	3H0509XESR		9VDC	333mA
3B0512XESR	3F0512XESR	3H0512XESR		12VDC	250mA
3B0515XESR	3F0515XESR	3H0515XESR		15VDC	200mA
3B0518XESR	3F0518XESR	3H0518XESR		18VDC	167mA
3B0524XESR	3F0524XESR	3H0524XESR		24VDC	125mA
3B1203XESR	3F1203XESR	3H1203XESR	12V±10 %	3.3VDC	800mA
3B1205XESR	3F1205XESR	3H1205XESR		5VDC	600mA
3B1207XESR	3F1207XESR	3H1207XESR		7.2VDC	417mA
3B1209XESR	3F1209XESR	3H1209XESR		9VDC	333mA
3B1212XESR	3F1212XESR	3H1212XESR		12VDC	250mA
3B1215XESR	3F1215XESR	3H1215XESR		15VDC	200mA
3B1218XESR	3F1218XESR	3H1218XESR		18VDC	167mA
3B1224XESR	3F1224XESR	3H1224XESR		24VDC	125mA
3B2403XESR	3F2403XESR	3H2403XESR	24V±10 %	3.3VDC	800mA
3B2405XESR	3F2405XESR	3H2405XESR		5VD	600mA
3B2407XESR	3F2407XESR	3H2407XESR		7.2VD	417mA
3B2409XESR	3F2409XESR	3H2409XESR		9VDC	333mA
3B2412XESR	3F2412XESR	3H2412XESR		12VDC	250mA
3B2415XESR	3F2415XESR	3H2415XESR		15VDC	200mA
3B2418XESR	3F2418XESR	3H2418XESR		18VDC	167mA
3B2424XESR	3F2424XESR	3H2424XESR		24VDC	125mA

ELECTRICAL SPECIFICATIONS

Specifications typical at +25 ° C, nominal input voltage, rated output current unless otherwise specifie

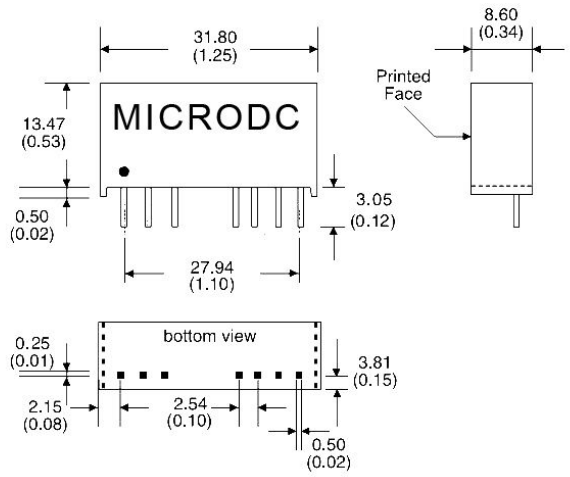
Input Specifications:	
Voltage range	±10%
Filter	p (Pi) Network
Isolation Specifications:	
Rated voltage (60 sec)	1000, 3000, 6000VDC
Resistance	> 1000MOhm
Capacitance	60pF, typ.
Output Specifications:	
Voltage accuracy	±2%, max
Ripple & noise (at 20MHz BW)	75mVp-p, max.
Short circuit protection	Continuous
Short circuit restart	Automatic
Line voltage regulation	±0.5%, max.
Load voltage regulation	±0.5%, max
Temperature coefficient	±0.02%/℃, typ

ELECTRICAL SPECIFICATIONS

Specifications typical at +25° C, nominal input voltage, rated output current unless otherwise specifie

General Specifications:	
Efficiency	64% to 70%
Switching frequency	125KHz, typ. 100%load
Environmental Specifications:	
Operating temperature (ambient)	-25°C~ +71°C
Storage temperature	-40°C~ +125
Case temperature	+90°C, max.
Derating	None required
Humidity (non-condensing)	Up to 90%
Cooling	Free-air Convection
Physical Specifications:	
Dimensions	31.80x8.60x13.47mm
	1.25x0.34x0.53inches
Weight	10.7g
Case material	Non-conductive black
	plastic

OUTLINE DIMENSIONS & PIN CONNECTIONS



Pin	1000, 3000 & 6000VDC
	Single
1	+V Input
2	N.C.
3	N.C.
9	N.C.
10	-V output
11	+V output
12	-V input

MICRODC
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RoHS COMPLIANT INFORMATION

This series is compatible with RoHS soldering systems with a peak wave solder temperature of 300° C for 10 seconds.
The pin termination finish on the SIP package type is Tin Plate, Hot Dipped over Matte Tin with Nickel Preplate. The DIP types are Matte Tin over Nickel Preplate. Both types in this series are backward compatible with Sn/Pb soldering systems.

REACH COMPLIANT INFORMATION

This series has proven that this product does not contain harmful chemicals, it also has harmful chemical substances through the registration, inspection and approval.