



Applications

These converters are well suitable for battery operated equipment, measurement equipment, telecom, wireless network, Industry control system, everywhere where isolated, tightly regulated voltages and compact size are required.

Features

- Wide 4:1 Input Voltage Range
- Input / Output Isolation: 1500VDC
- Operating Temperature: -40°C to +100°C
- Remote On/Off
- Output Short Circuit Protection
- Over Voltage Protection: Clamp Mode
- Over Temperature Protection
- Adjustable Output Voltage
- Lead Free Design, RoHS Compliant
- IEC/EN 62368-1 Safety Approval

Part Number Structure

BXC60 - **24** **S** **1** **W** **HS**
(1) (2) (3) (4) (5) (6)

(1) Series

(2) Input Voltage Range

24 - 9 - 36V

48 - 18 - 75V

(4) Output Voltage

0 - 3.3V

1 - 5V

2 - 12V

3 - 15V

(3) Output Type

S - Single Output

(5) Input Range

W - 4:1

(6) Heat-sink (Optional)

Blank - Without Heat-sink

HS - With Heat-sink

Models and Ratings

Model Number	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Current (mA)		Input Current (mA) typ.		Efficiency (%) typ.	Capacitive Load (μF) max.
			Min. Load	Full Load	No Load	Full Load		
BXC60-24S0W	9 - 36 24V nominal	3.3	0	14000	70	2437	83	47000
BXC60-24S1W		5	0	12000	80	3086	85	36000
BXC60-24S2W		12	0	5000	100	2976	88	4700
BXC60-24S3W		15	0	4000	90	2941	89	2200
BXC60-48S0W	18 - 75 48V nominal	3.3	0	14000	30	1188	85	47000
BXC60-48S1W		5	0	12000	33	1506	87	36000
BXC60-48S2W		12	0	5000	50	1488	88	4700
BXC60-48S3W		15	0	4000	39	1453	90	2200

Input Specifications

Input voltage	See 'Models and Ratings' table	
	100ms max.	
Input surge voltage	24Vin models	50 VDC
	48Vin models	100 VDC
Input filter	Pi type	
Input reflected ripple current	Nominal Vin and full load	200 mAp-p typ.
Remote ON/OFF	Converter On	Open circuit or 3.5 to 12 VDC
	Converter Off	Short circuit or 0 to 0.7 VDC
	Refer to 'Remote' and '-Vin' pin	
Off idle input current	Nominal Vin	20 mA max.
Remote pin input current	Nominal Vin	0.2 mA max.

Output Specifications

Voltage accuracy	Nominal Vin and full load	±1% max.
Output voltage adjustability (Trim)		±10% max.
Minimum load	See 'Models and Ratings' table	
Line regulation		±0.5% max.

Load regulation	25% to 100% load	
	3.3Vout models	±0.8% max.
	Other models	±0.5% max.
Ripple and noise	20MHz bandwidth	
	15Vout models	100 mVp-p max.
	Other models	75 mVp-p max.
Capacitive load	See 'Models and Ratings' table	
Short circuit protection	Continuous, Automatic recovery	
Overload protection	Nominal Vin	110% min. of full load
Over voltage protection (Zener Diode Clamp)	3.3V output	3.9V
	5V output	6.2V
	12V output	15V
	15V output	18V
Transient recovery time	50% load step change	3 ms typ.
Transient response deviation	di/dt = 0.8 A/μs	±5% max.
Temperature coefficient	Full load	±0.02%/°C max.
General Specifications		
Efficiency	Nominal Vin and full load	See 'Models and Ratings' table
Start-up time	Nominal Vin and constant resistive load	60 ms typ.
Switching frequency		300 kHz typ.
Isolation voltage	Input to output, 60 s	1500 VDC min.
	Input/output to case, 60 s	1500 VDC min.
Isolation resistance	500 VDC	1000 MΩ min.
Isolation capacitance		1200 pF typ.
Reliability, calculated MTBF	MIL-HDBK-217F@25°C, Ground Benign	8.88 × 10 ⁵ h
Operating ambient temperature	With derating	-40°C to +100°C
Maximum case temperature		+105°C max.
Over Temperature Protection	Case temperature	+110°C typ.
Storage temperature range		-55°C to +125°C
Relative humidity		95% RH max.
Cooling		Natural convection

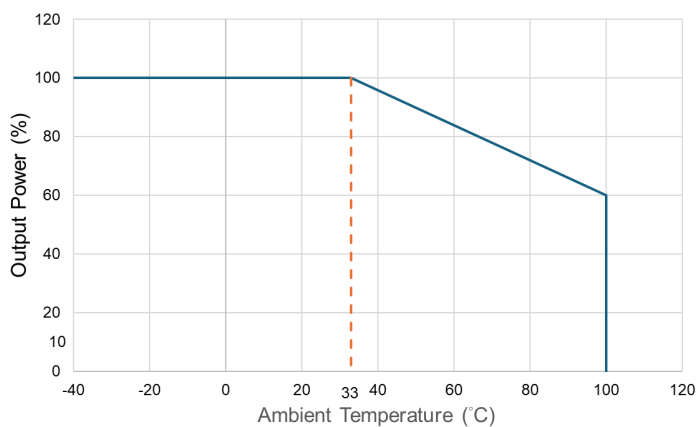
Physical Specifications

Case material	Nickel-coated copper
Base material	FR4 PCB (UL 94 V-0)
Pin material	Copper alloy
Pin Foundation Plating	Nickel
Pin Surface Plating	Tin
Potting material	Silicone (UL 94 V-0)
Dimensions	2.0 × 2.0 × 0.5 inch
	50.8 × 50.8 × 12.7 mm
Weight	84 g typ.

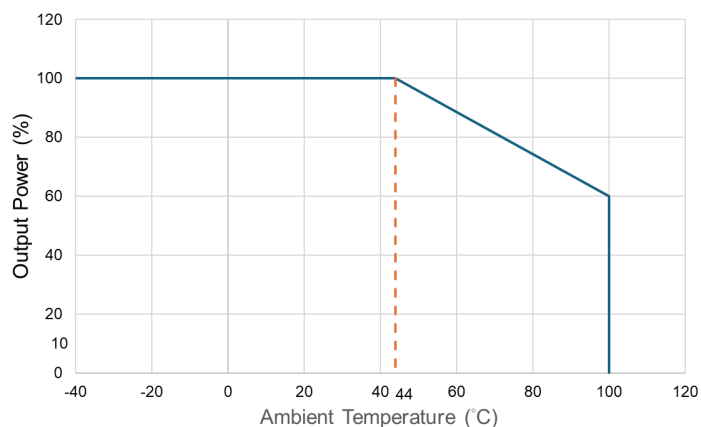
Characteristic Curves

Power Derating Curve

Without Heat-sink

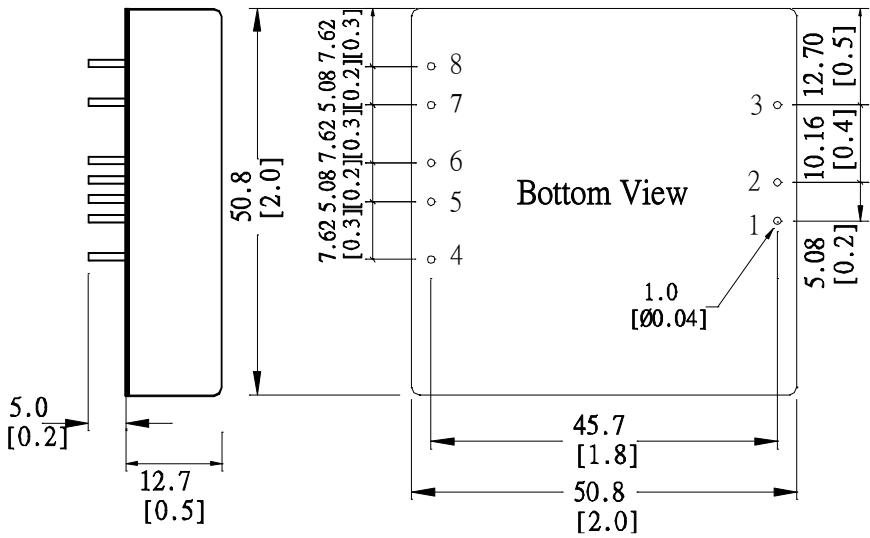


With Heatsink



Mechanical

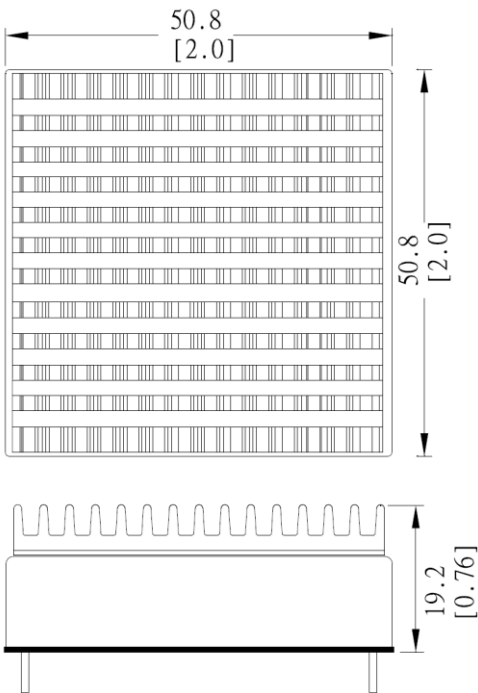
Standard model



Pinout	
PIN	Function
1	+Vin
2	-Vin
3	Remote On/Off
4	-Sense
5	+Sense
6	+Vout
7	-Vout
8	Trim

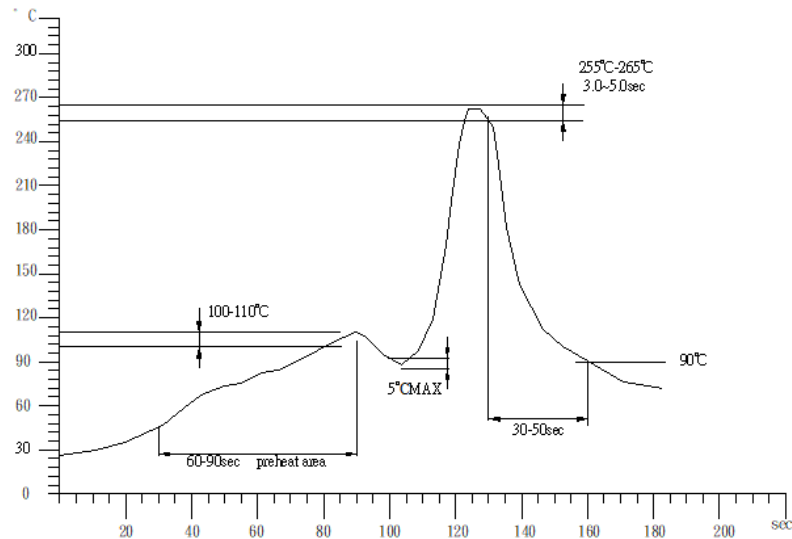
Dimensions in mm [inch]
Tolerances: ± 0.5 [± 0.02]
Pin dimension tolerances: ± 0.10 (± 0.004)

Optional model with heatsink



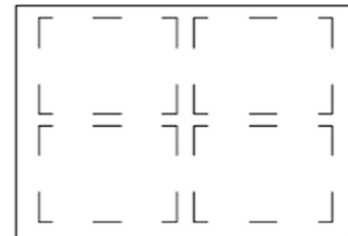
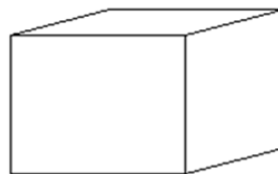
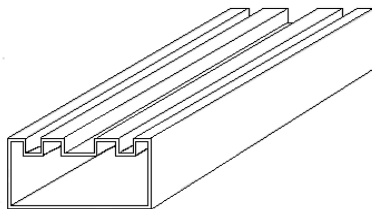
Heatsink
Material: Anodized aluminum (black)
Weight: 19g (0.67oz)

Wave Soldering Temperature Curve



Carton Package

Standard model



INNER CARTON: 388*158.5*115

EXPORT CARTON: 405*334*263

TUBE = 5PCS

INNER CARTON = 16 TUBE = 16*5 = 80PCS

EXPORT CARTON = 4 INNER CARTON = 4*80 = 320PCS

For More Information:

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