V•I Chip BCM HV Series

235-300 WATTS - DC/DC HV BUS CONVERTER MODULE

FEATURES

- Input: HV 270 / 350 / 380 V
- Efficiency: 95% Typical
- Power Density: >1000 W/in3
- Current sharing: 5%
- Isolation: 4,242 Vdc
- Footprint: 1.1 in2

BUS CONVERTER MODULE (BCM) PRODUCT DESCRIPTION

The HV Bus Converter family consists of six models that provide an isolated intermediate bus voltage to power non-isolated POL converters. The HV BCMs offer direct conversion from PFC bus voltage to 12 V POL at up to 300 W with isolation to 4,242 Vdc. The HV family provides superior performance, the highest efficiency and power density in the smallest package available.

MODEL NUMBER*	INPUT VOLTAGE (V)	OUTPUT VOLTAGE (V)	OUTPUT POWER (W)	OUTPUT CURRENT (A)	GRADE
B384F120T30	360 – 400	11.25 – 12.5	300	25.0	Commercial
BCM352F110T300A00	330 – 365	10.3 – 11.4	300	28.0	Commercial
BCM352F125T300A00	330 – 365	11.79 – 13.04	300	26.0	Commercial
BCM352F440T330A00	330 – 365	41.25 – 45.63	325	7.7	Commercial
BCM384F480T325A00	360 – 400	45.0 – 50.0	325	7.0	Commercial
MBCM270F338M235A00	240 – 330	30.0 – 41.25	235	7.3	MIL-COTS
MBCM270F450M270A00	230 – 330	38.3 – 55.0	270	6.25	MIL-COTS

GENERAL SPECIFICATIONS

PARAMETER	TYPE	UNIT	NOTE
MTBF			
MIL-HDBK-217F	3.5	Mhrs	25°C, GB
ISOLATION			
Voltage	4,242	Vdc	Input to output (basic insulation)
Capacitance	500–660	pF	Input to output
Resistance	10	MΩ	Input to output
Regulatory compliance	cTÜVus CE Mark RoHS		
THERMAL			
Over temperature shutdown	125	°C	minimum, junction temperature
Case-to-ambient thermal impedance	3.7	°C/W	with 0.25" heat sink @ 300 LFM
Operating junction temperature	-40 to 125	°C	T–Grade
Operating junction temperature	-55 to 125	°C	MIL–COTS
Storage temperature	-40 to 125	°C	

TYPICAL APPLICATION