

PART NUMBER: VBD20 series

DESCRIPTION: DC/DC converter

features

- 20W isolated output
- efficiency to 88%
- 2:1 input range
- regulated outputs
- continuous short circuit protection
- Pi input filter



model number	input voltage	output voltage	output current		input current		efficiency
			min.	max.	no load	full load	
VBD20-D24-S1R8	18-36VDC	1.8VDC	0mA	6000mA	30mA	523mA	86%
VBD20-D24-S2R5	18-36VDC	2.5VDC	0mA	6000mA	30mA	718mA	87%
VBD20-D24-S3R3	18-36VDC	3.3VDC	0mA	5000mA	40mA	722mA	89%
VBD20-D24-S5	18-36VDC	5VDC	0mA	4000mA	60mA	926mA	90%
VBD20-D24-S12	18-36VDC	12VDC	0mA	1670mA	20mA	938mA	89%
VBD20-D24-S15	18-36VDC	15VDC	0mA	1330mA	20mA	934mA	87%
VBD20-D24-D12	18-36VDC	±12VDC	42mA	835mA	20mA	938mA	89%
VBD20-D24-D15	18-36VDC	±15VDC	33mA	670mA	20mA	941mA	89%
VBD20-D48-S1R8	36-75VDC	1.8VDC	0mA	6000mA	30mA	262mA	86%
VBD20-D48-S2R5	36-75VDC	2.5VDC	0mA	6000mA	30mA	359mA	87%
VBD20-D48-S3R3	36-75VDC	3.3VDC	0mA	5000mA	30mA	386mA	89%
VBD20-D48-S5	36-75VDC	5VDC	0mA	4000mA	40mA	463mA	90%
VBD20-D48-S12	36-75VDC	12VDC	0mA	1670mA	15mA	469mA	89%
VBD20-D48-S15	36-75VDC	15VDC	0mA	1330mA	15mA	467mA	89%
VBD20-D48-D12	36-75VDC	±12VDC	42mA	835mA	10mA	469mA	89%
VBD20-D48-D15	36-75VDC	±15VDC	33mA	670mA	10mA	471mA	89%

PART NUMBER: VBD20 series

DESCRIPTION: DC/DC converter

INPUT

input voltage range	24V 48V	18-36V 36-75V
under voltage lockout	24V _{in} power up power down 48V _{in} power power down	17V 16V 34V 33V
input filter type		PI type
positive logic remote on/off control:		
logic compatibility		CMOS or open collector TTL
module ON		>5.5VDC or open circuit
module OFF		<1.2VDC

OUTPUT

voltage accuracy		±1.5% max.
transient response	single 25% step load change	<500μ sec.
ripple & noise	20MHz BW ³ ,	75mV p-p., max
temperature coefficient		±0.03%/°C max
short circuit protection		continuous
line regulation ¹	single / dual output	±0.2% / ±0.5% max
load regulation ²		±1.0% max
over voltage protection		Zener or TVS clamp
external trim adj. range		±10%

GENERAL SPECIFICATIONS

efficiency		see table
isolation voltage		1500VDC min.
isolation resistance		10 ⁸ ohms min
switching frequency		350KHz, Type
operating temperature range		-40°C to 85°C
EMI/RFI		six sided continuous shield
derating, Above 71°C		linearly to zero power at + 100°C
case temperature		100°C max
storage temperature range		-55°C to +105°C
dimensions		2.0x1.0x0.4 inches (50.8x25.4x10.2mm)
case material		black coated copper with
non-conductive base		

NOTES:

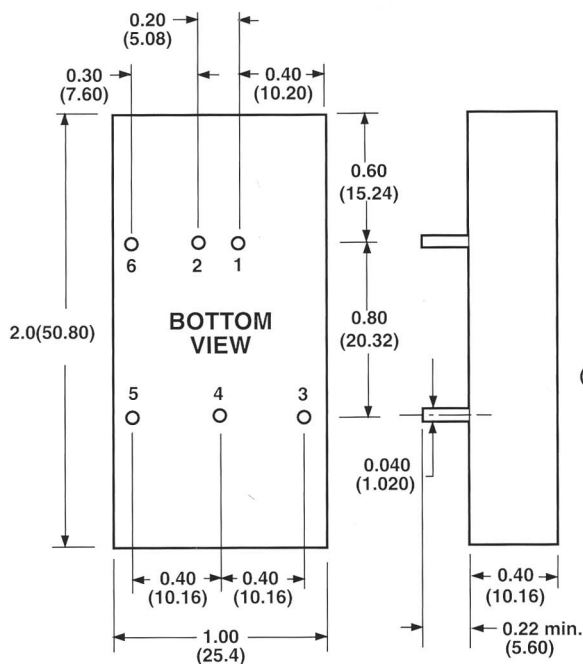
1. Measured from high line to low line
2. Measured from full load to 1/10 load
3. The output noise is measured with 0.1μF ceramic capacitor
4. Suffix "S" to the model number with alternative pin configuration

PART NUMBER: VBD20 series

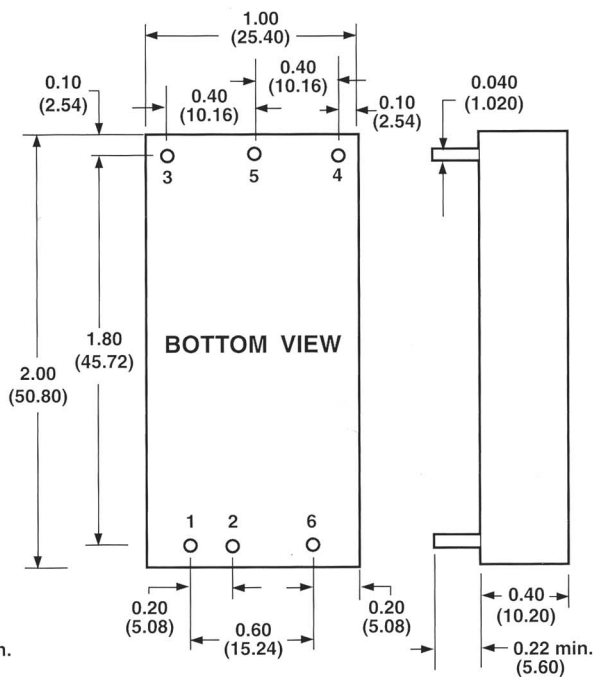
DESCRIPTION: DC/DC converter

DIMENSIONS (mm)

STANDARD PIN CONFIGURATION



ALTERNATE PIN CONFIGURATION (suffix "-S")



tolerance: inches .xx = ±0.04, .xxx = ±0.010
 mm .xx = ±1.0, .xxx = ±0.25

Pin #	Single Output	Dual Output
	Function	Function
1	+V Input	+V Input
2	-V Input	-V Input
3	+V Output	+V Output
4	Trim	Common
5	-V Output	-V Output
6	Remote ON / OFF	

DERATING CURVE

