

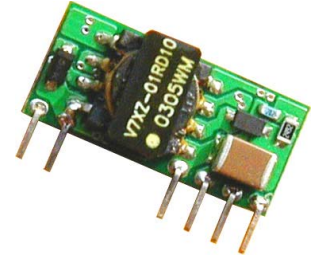
ISOLATED DC/DC CONVERTERS

24 V Input 22.5 V/28 mA or 27 V/25 mA Dual Outputs

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POWER PRODUCTS

V7XZ-01RD Series

- Isolated
- High Efficiency
- Excellent Thermal Performance
- Low Cost
- Low Profile Package
- Dual Outputs



Description

The V7XZ-01RD series are isolated dc/dc converters that operate from a nominal 24 V source. These converters provide up to 1.3 W of output power, using a SIP package for ease of layout and space savings. The efficiency is typically 82% at full load.

Note: All specifications are typical at nominal input, full load at 25 °C unless otherwise stated.

Part Selection

Output Voltage	Input Voltage	Max. Output Current	Max. Output Power	Typical Efficiency	Model Number
22.5 V (dual)	24 V	28 mA	1.3 W	82%	V7XZ-01RD10
27 V (dual)	24 V	25 mA	1.3 W	82%	V7XZ-01RD20

Note: Add “G” suffix at the end of the model number to indicate “Tray Packaging”.

Absolute Maximum Ratings

Parameter	Min	Typ	Max	Notes
Input Voltage (continuous)	-0.3 V	-	28 V	
Output Power	-	-	1.3 W	
Ambient Temperature	0 °C	-	70 °C	
Storage Temperature	-40 °C	-	125 °C	

Input Specifications

Parameter	Min	Typ	Max	Notes
Input Voltage	24 V	-	28 V	
Input Current (no load)	-	-	15 mA	
Input Current (full load)	-	-	70 mA	

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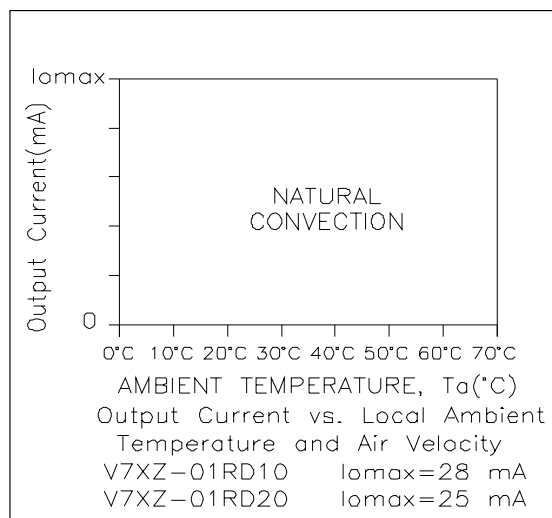
Output Specifications

Parameter	Min	Typ	Max	Notes
Output Voltage Set Point				
Vo=22.5 V	22.5 V	-	24 V	Vin=24 V, Iout=full load, Ta=25 °C
Vo=27 V	26 V	-	27 V	
Load Regulation	Vo=22.5 V	-	0.7 V	Vin=24 V, Iout=6 mA ~ 28 mA
	Vo=27 V	-	0.7 V	Vin=24 V, Iout=4 mA ~ 25 mA
Regulation Over Temperature (0 °C to 70 °C)	-	0.2 V	0.5 V	For both outputs
Output Current				
Vo=22.5 V	0 mA	-	28 mA	
Vo=27 V	0 mA	-	25 mA	
Ripple and Noise (rms)	-	14 mV	25 mV	0 – 20 MHz Bandwidth with 0.1 uF ceramic capacitor at output
Ripple and Noise (pk-pk)	-	55 mV	120 mV	
Overshoot at Turn on	-	0%	3%	

General Specifications

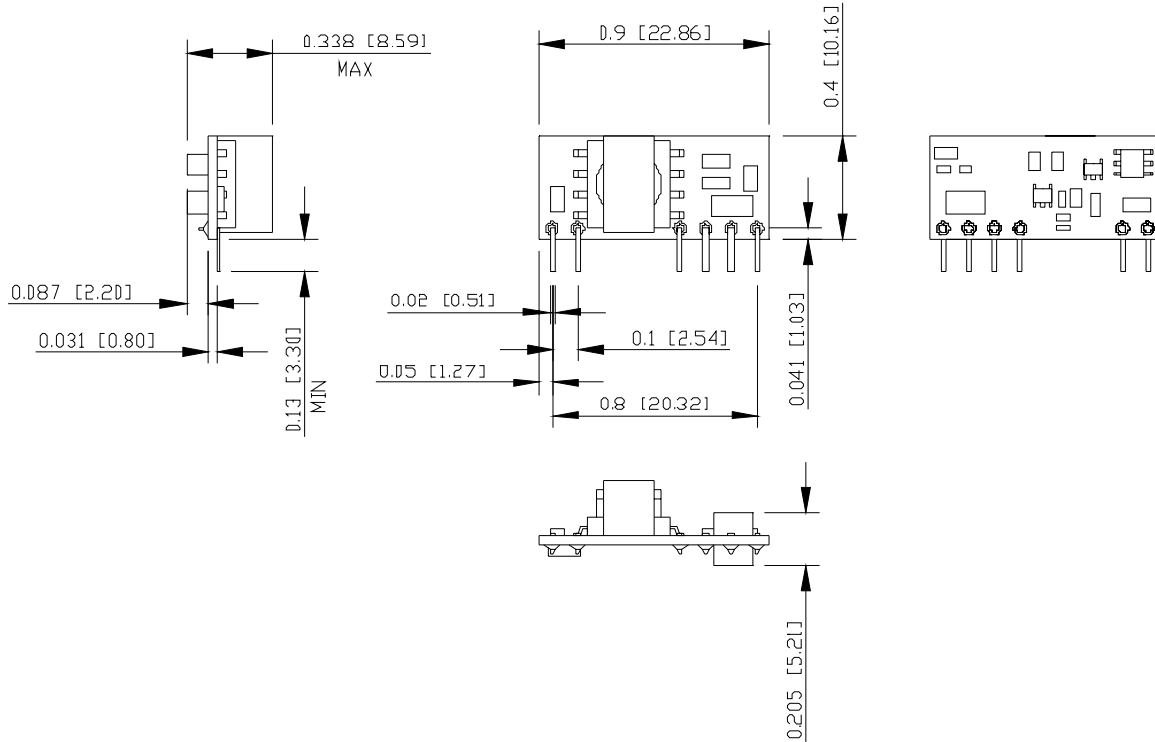
Parameter	Min	Typ	Max	Notes
Efficiency				
Vo=22.5 V	80%	82%	-	Vin=24 V, Io= Io-max, at full load and Ta=25 °C
Vo=27 V	80%	82%	-	
Switching Frequency	-	190 kHz	-	
Isolation	-	-	2000 V	
MTBF	3,000,000 hours			Calculated Per Bell Core TR-332 (Io = Nominal; Ta = 25 °C)
Dimensions				
Inches (L x W x H)	0.9 x 0.338 x 0.4			
Millimeters (L x W x H)	22.86 x 8.59 x 10.16			
Weight	-	2.5 g	-	

Thermal Derating Curve



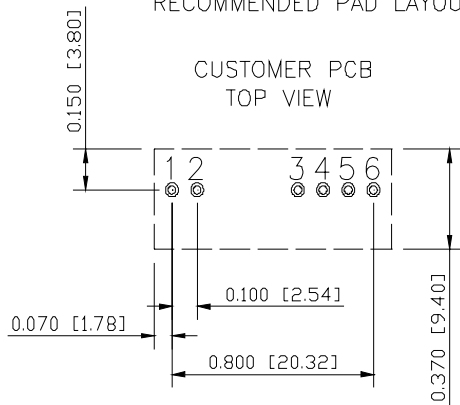
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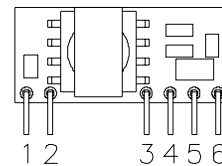
RECOMMENDED PAD LAYOUT

CUSTOMER PCB TOP VIEW



HOLE SIZE: \varnothing 0.031 [0.79]

PAD SIZE: \varnothing 0.063 [1.30]



Pin Connections

Pin	Function
1	Vin+
2	Vin-
3	Vo1-
4	Vo1+
5	Vo2-
6	Vo2+

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