

PXD Series

Single and Dual Output 10 to 20W DC-DC Converters



- ◆ Industry Standard 2" x 1" Footprint
- ◆ Six Sided Shielding
- ◆ Agency Approved
- ◆ 12V, 24V and 48V Inputs

Key Market Segments & Applications

Telecom, Datacom, Point of Load

PXD Features and Benefits

| Feature | Benefit |
|-----------------------------|---------------------------|
| ◆ UL, CSA, EN, CE approvals | ◆ Easier system approvals |
| ◆ Wide range input | ◆ Less parts to inventory |
| ◆ Six sided shielding | ◆ Reduced radiated noise |

Specifications

| ITEMS | PXD10 | PXD15 | PXD20 |
|---|---|--|-------------------------|
| Max Output Power | 10W | 15W | 20W |
| Voltage Accuracy | ±2% | ±1% | ±1% |
| Voltage Adjustment (Single O/P Only) | None | None | ±10% |
| Minimum Load, each output (1) | 10% | 10% | Single 0%; Dual 10% |
| Line Regulation | ±1% | ±1% | ±0.2% |
| Load Regulation (10% to 100%) | Single Output: ±1% Dual Output: ±2% | Single Output: ±1% Dual Output: ±2% | ±0.5% |
| Cross Regulation (25% to 100%) | | ±5% | |
| Ripple and Noise | Single 50mV, Dual 75mV | | Single 75mV, Dual 100mV |
| Start up time | 20ms | | 10ms |
| Remote on/off (3) | Positive Logic: ON: Open or 3.5-12V, OFF Short or <1.2V Negative Logic: ON: Short or <1.2V, OFF: Open or 3.5-12V | | |
| Temperature Coefficient | <±0.02%/°C | | |
| Operating Temperature | See derating curves | | |
| Maximum Case Temperature | 100°C | | |
| Storage Temperature | -55 to 105°C | | |
| Thermal Shock | MIL-STD-810D | | |
| Relative Humidity | 5 to 95% (non condensing) | | |
| Transient Response (25% step load chg.) | 500us recovery | 500us recovery | 300us recovery |
| Overvoltage Protection (Zener clamp) | 1.5-3.3V: 3.9V, 5V: 6.2V, 12V: 15V, 15V: 18V | | |
| Overcurrent & Short Circuit Protection | Typically at 150%, hiccup with self recovery | | |
| Input Surge Voltage (Max. for 100ms) | 12V input: 36V, 24V input: 50V, 48V input: 100V | | |
| Reflected input ripple (peak to peak) (2) | 30mA | 20mA | 20mA |
| Isolation Voltage | 1600VDC minimum | | |
| Isolation Resistance | 109 Ohms minimum | | |
| Isolation Capacitance (max) | 300pF | | 1000pF |
| Typical Switching Frequency (Fixed) | 300kHz | Single: 500kHz Dual: 300kHz | 500kHz |
| MTBF (BELLCORE TR-NWT-000332) | 1,976,000 hours, 2,041,000 hours, 1,791,000 hours | | |
| Vibration | 10 - 55Hz, 2G, 30 minutes each X, Y, Z axis | | |
| Conducted and Radiated Emissions | EN55022 Level A | | |
| Immunity | EN61000-4-2, -3, -4, -5, -6 Pref Criteria 2 | | |
| Safety Agency Approval | IEC606950, UL1950, EN60950, CE Mark | | |
| Size (L x W x H) | 2x1x0.4" | | |
| Weight | 0.95 oz (27g) | | |
| Warranty | One Year | | |

Notes:

(1) To meet regulation & noise specifications. Operation at zero load will not damage the device

(2) 12uH source impedance in series with + input

(3) Positive logic standard on 20W (see options table). Input current 2.5mA

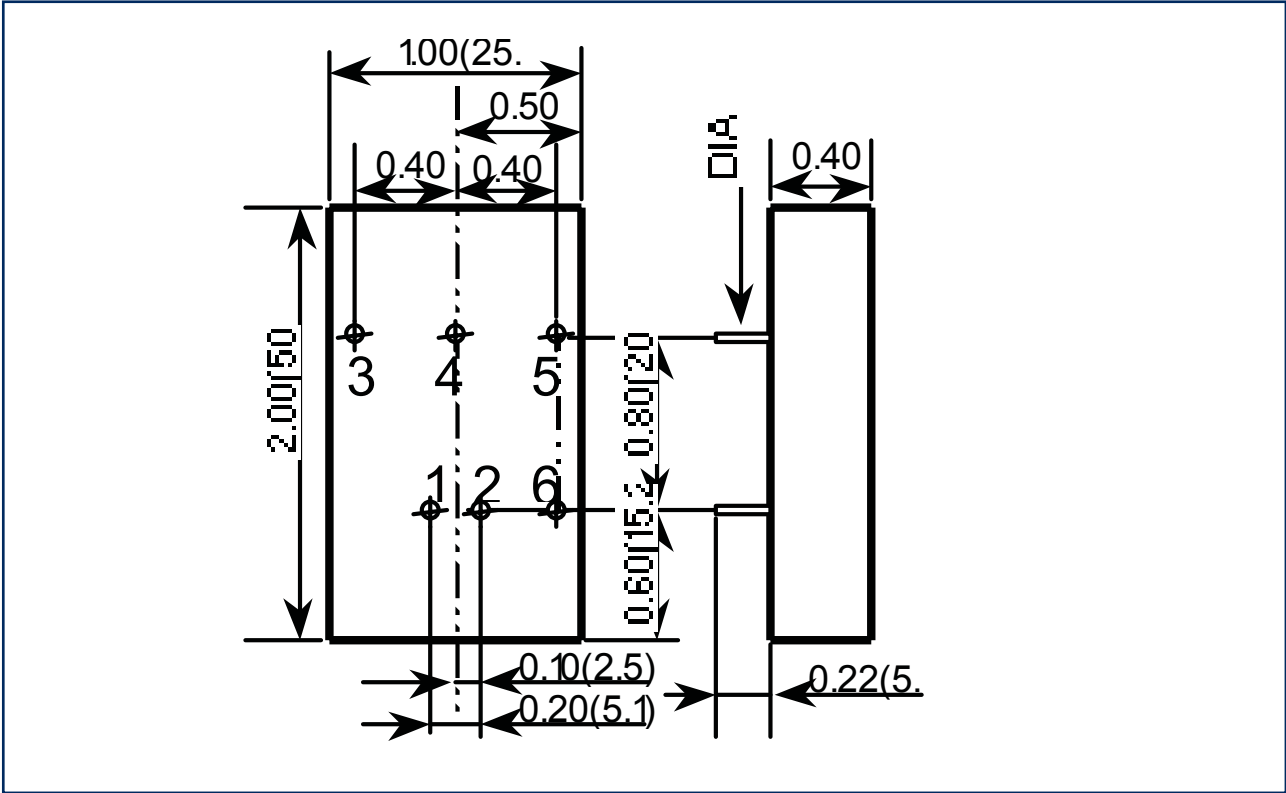
* See website for detailed specifications

| Model Selector | | | | | |
|-----------------------|-----------------|------------------|----------------|--------------|---------|
| Output Volt (V) | Output Curr (A) | Output Power (W) | Input Volt (V) | Model | Eff.(%) |
| 3.3 | 2.0 | 6.6 | 9 - 18VDC | PXD10-12S3P3 | 80 |
| 3.3 | 2.0 | 6.6 | 18 - 36VDC | PXD10-24S3P3 | 80 |
| 3.3 | 2.0 | 6.6 | 36 - 75VDC | PXD10-48S3P3 | 79 |
| 3.3 | 5.0 | 16.5 | 9 - 18VDC | PXD20-12S3P3 | 84 |
| 3.3 | 5.0 | 16.5 | 18 - 36VDC | PXD20-24S3P3 | 86 |
| 3.3 | 5.0 | 16.5 | 36 - 75VDC | PXD20-48S3P3 | 87 |
| 5 | 2.0 | 10 | 9 - 36VDC | PXD10-24WS05 | 80 |
| 5 | 2.0 | 10 | 18 - 75VDC | PXD10-48WS05 | 80 |
| 5 | 4.0 | 20 | 9 - 18VDC | PXD20-12S05 | 87 |
| 5 | 4.0 | 20 | 18 - 36VDC | PXD20-24S05 | 89 |
| 5 | 4.0 | 20 | 36 - 75VDC | PXD20-48S05 | 89 |
| 12 | 0.83 | 10 | 9 - 36VDC | PXD10-24WS12 | 82 |
| 12 | 0.83 | 10 | 18 - 75VDC | PXD10-48WS12 | 84 |
| 12 | 1.67 | 20 | 9 - 18VDC | PXD20-12S12 | 85 |
| 12 | 1.67 | 20 | 18 - 36VDC | PXD20-24S12 | 87 |
| 12 | 1.67 | 20 | 36 - 75VDC | PXD20-48S12 | 88 |
| 15 | 0.67 | 10 | 9 - 36VDC | PXD10-24WS15 | 80 |
| 15 | 0.67 | 10 | 18 - 75VDC | PXD10-48WS15 | 84 |
| 15 | 1.33 | 20 | 9 - 18VDC | PXD20-12S15 | 85 |
| 15 | 1.33 | 20 | 18 - 36VDC | PXD20-24S15 | 87 |
| 15 | 1.33 | 20 | 36 - 75VDC | PXD20-48S15 | 87 |
| Dual Outputs | | | | | |
| ±5 | ±1.5 | 15 | 9 - 18VDC | PXD15-12D05 | 83 |
| ±5 | ±1.5 | 15 | 18 - 36VDC | PXD15-24D05 | 84 |
| ±5 | ±1.5 | 15 | 36 - 75VDC | PXD15-48D05 | 85 |
| ±12 | ±0.416 | 10 | 9 - 36VDC | PXD10-24WD12 | 80 |
| ±12 | ±0.416 | 10 | 18 - 75VDC | PXD10-48WD12 | 78 |
| ±12 | ±0.833 | 20 | 9 - 18VDC | PXD20-12D12 | 86 |
| ±12 | ±0.833 | 20 | 18 - 36VDC | PXD20-24D12 | 87 |
| ±12 | ±0.833 | 20 | 36 - 75VDC | PXD20-48D12 | 88 |
| ±15 | ±0.333 | 10 | 9 - 36VDC | PXD10-24WD15 | 80 |
| ±15 | ±0.333 | 10 | 18 - 75VDC | PXD10-48WD15 | 81 |
| ±15 | ±0.667 | 20 | 9 - 18VDC | PXD20-12D15 | 86 |
| ±15 | ±0.667 | 20 | 18 - 36VDC | PXD20-24D15 | 87 |
| ±15 | ±0.667 | 20 | 36 - 75VDC | PXD20-48D15 | 87 |

| Pinout | | |
|---------------|-----------------|---------------|
| PIN # | Function | |
| | Single Output | Dual Output |
| 1 | + Input | + Input |
| 2 | - Input | - Input |
| 3 | + Output | + Output |
| 4 | Trim (20W only) | Common |
| 5 | - Output | - Output |
| 6 | Remote On/Off | Remote On/Off |

| Remote On/Off Option | |
|-----------------------------|----------------|
| Suffix | Function |
| -P* | Positive Logic |
| -N | Negative Logic |
| Example: PXD1548S12-N | |
| * Included in PXD20 models | |

Outline Drawing



Pinout Graphs

