



PXC05 Series

Single and Dual Output 5W
DC-DC Converters

- Industry Standard 24 Pin Dip Package
- Five Sided Shielding
- Wide Range 4:1 Input
- 3.3, 5, 12, 15 Volt Outputs
- Pin & Surface Mount Models

Key Market Segments & Applications

Telecom
Datacom
Factory Automation & Process Control

PXC05 Features and Benefits

Features

- UL, C-UL, TUV, CE approvals
- Wide range input
- Five sided shielding

Benefits

- Easier system approvals
- Less parts to inventory
- Reduced radiated noise

Specifications

| ITEMS | PXC05 |
|--|---|
| Max Output Power | 5W |
| Voltage Accuracy | +/-2% |
| Voltage Adjustment | None |
| Minimum Load (1) | 10% |
| Line Regulation | +/-0.2% |
| Load Regulation (25% to 100%) | Single Output: +/-0.5%, Dual Output: +/-1% |
| Cross Regulation (25% to 100%) | Dual +/-5% |
| Ripple and Noise | 50mVp-p (20MHz bandwidth) |
| Start up time | 600ms |
| Temperature Coefficient | <+/-0.02%/°C |
| Operating Temperature | See derating curves |
| Maximum Case Temperature | +100°C |
| Storage Temperature | -55°C to +105°C |
| Thermal Shock | MIL-STD-810D |
| Relative Humidity (non condensing) | 5 to 95% |
| Transient Response | 200µs recovery (25% step load change) |
| Overvoltage Protection | None |
| Overcurrent Protection | Typically at 170%, self recovery |
| Input Surge Voltage (Max for 100ms) | 12V input: 36V, 24V input: 50V, 48V input: 100V |
| Reflected input ripple (peak to peak)(2) | 20mA |
| Isolation Voltage | 1600VDC min. |
| Isolation Resistance | 10 ⁹ Ω min. |
| Isolation Capacitance (max) | 300pF |
| Typical Switching Frequency (Fixed) | 300kHz |
| MTBF (BELLCORE TR-NWT-000332) | 3,165,000 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 | IEC/UL/CSA/EN 62368-1, 60950-1, CE Mark |
| Size mm (L x W x H) | 32 x 21 x 11 |
| Weight (g) | DIP 16 SMD 18 |
| Warranty (yrs) | 3 |

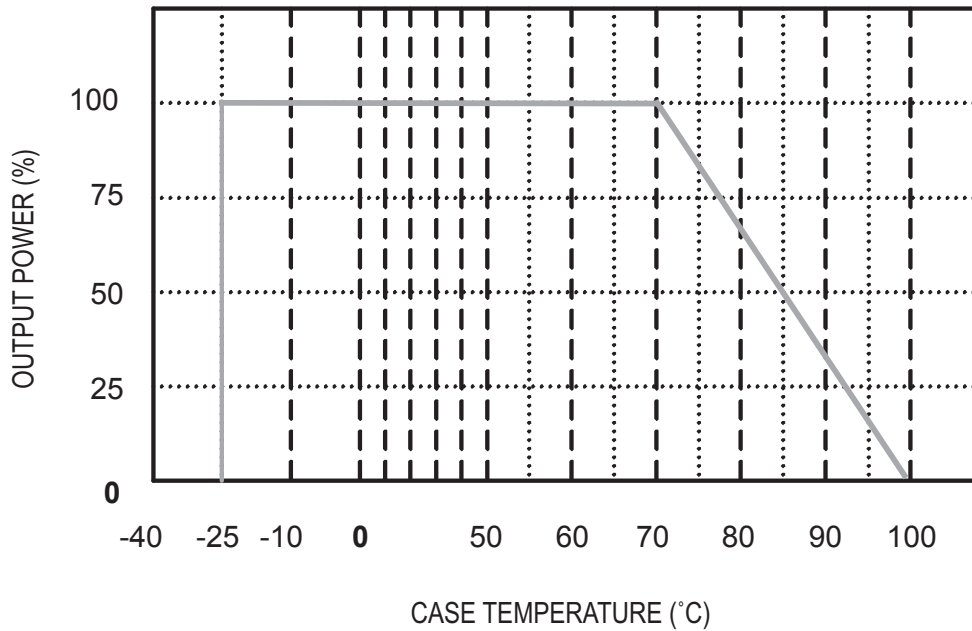
Notes: (1) To meet regulation & noise specifications. Operation at zero load will not damage the device
(2) 12µH source impedance in series with + input (3) SMD package: Add suffix "/SMD" to model number.

| Model Selector | | | | | | | |
|-----------------------|--------------------|---------------------|------------------|-------------------|----------------------------|----------------|------------------------|
| Model | Output Voltage (V) | Output Current (mA) | Output Power (W) | Input Voltage (V) | Nominal Input Current (mA) | Efficiency (%) | Max Load Capacity (uF) |
| Single Outputs | | | | | | | |
| PXC05-24WS3P3 | 3.3 | 1000 | 3.3 | 9 - 36VDC | 191 | 76 | 2200 |
| PXC05-48WS3P3 | 3.3 | 1000 | 3.3 | 18 - 75VDC | 100 | 73 | 2200 |
| PXC05-24WS05 | 5 | 1000 | 5 | 9 - 36VDC | 285 | 77 | 1000 |
| PXC05-48WS05 | 5 | 1000 | 5 | 18 - 75VDC | 145 | 76 | 1000 |
| PXC05-24WS12 | 12 | 470 | 5.64 | 9 - 36VDC | 309 | 80 | 220 |
| PXC05-48WS12 | 12 | 470 | 5.64 | 18 - 75VDC | 155 | 80 | 220 |
| PXC05-24WS15 | 15 | 400 | 6 | 9 - 36VDC | 329 | 80 | 150 |
| PXC05-48WS15 | 15 | 400 | 6 | 18 - 75VDC | 167 | 79 | 150 |
| Dual Outputs | | | | | | | |
| PXC05-24WD05 | +/-5 | +/-500 | 5 | 9 - 36VDC | 282 | 78 | +/-680 |
| PXC05-48WD05 | +/-5 | +/-500 | 5 | 18 - 75VDC | 145 | 76 | +/-680 |
| PXC05-24WD12 | +/-12 | +/-230 | 5.52 | 9 - 36VDC | 295 | 82 | +/-100 |
| PXC05-48WD12 | +/-12 | +/-230 | 5.52 | 18 - 75VDC | 151 | 80 | +/-100 |
| PXC05-24WD15 | +/-15 | +/-190 | 5.7 | 9 - 36VDC | 313 | 80 | +/-68 |
| PXC05-48WD15 | +/-15 | +/-190 | 5.7 | 18 - 75VDC | 159 | 79 | +/-68 |

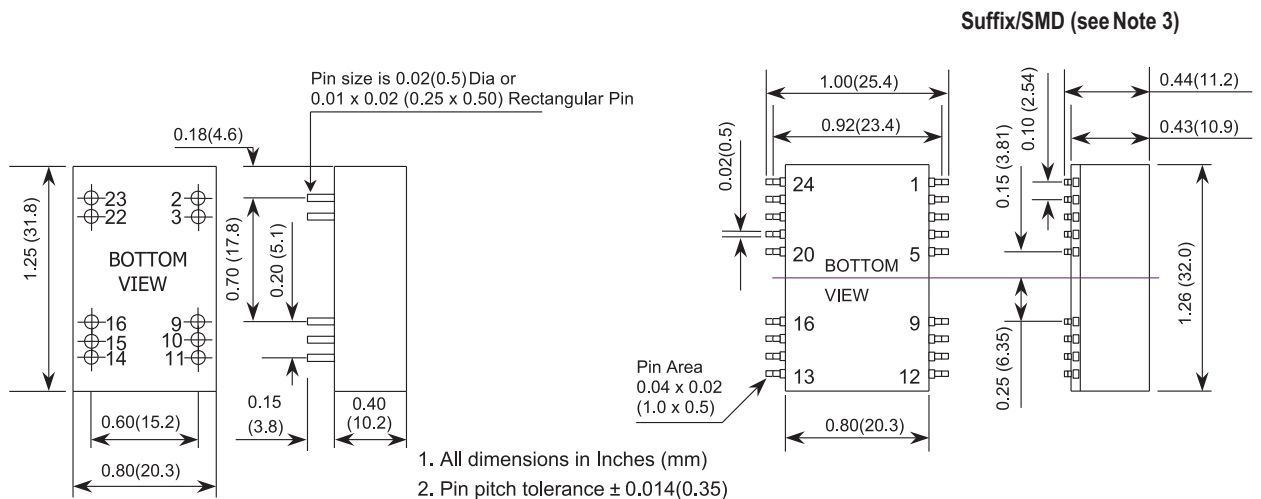
| DIP Pin Connection | | | |
|--------------------|----------|----------|----------|
| Pin # | Single | Function | Dual |
| 2 | - Input | | - Input |
| 3 | - Input | | - Input |
| 9 | NC | | Common |
| 10 | no pin | | no pin |
| 11 | NC | | - Output |
| 23 | + Input | | + Input |
| 22 | + Input | | + Input |
| 16 | - Output | | Common |
| 15 | no pin | | no pin |
| 14 | + Output | | + Output |

| SMD Pin Connection | | | |
|--------------------|----------|----------|----------|
| Pin # | Single | Function | Dual |
| 2 | - Input | | - Input |
| 3 | - Input | | - Input |
| 9 | NC | | Common |
| 10 | NC | | NC |
| 11 | NC | | - Output |
| 23 | + Input | | + Input |
| 22 | + Input | | + Input |
| 16 | - Output | | Common |
| 15 | NC | | NC |
| 14 | + Output | | + Output |
| Others | NC | | NC |

Derating Curve PXC05 Series



Outline Drawing PXC05 Series





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