



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	IEC60950-1, UL/CSA60950-1, EN60950-1, CE Mark
Size mm (L x W x H)	32 x 21 x 11
Weight (g)	DIP 16 SMD 18
Warranty (yrs)	2

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

The graph shows the output power of the 100W module as a function of case temperature. The x-axis represents Case Temperature in °C, ranging from -40 to 100. The y-axis represents Output Power in %, ranging from 0 to 100. The power is constant at 100% from -25°C to 70°C and then decreases linearly to 0% at 100°C.

Case Temperature (°C)	Output Power (%)
-25	100
70	100
100	0

Pin size is 0.02(0.5) Dia or
0.01 x 0.02 (0.25 x 0.50) Rectangular Pin

Suffix/SMD (see Note 3)

1. All dimensions in Inches (mm)
2. Pin pitch tolerance $\pm 0.014(0.35)$

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