

PXA15 Series

Single Output 15W
DC-DC Converters

- Industry Standard 1" x 1" Footprint
- 9-36V or 18-75VDC Input
- Pin & Surface Mount Models
- Efficiency up to 88%
- Fixed switching Frequency

Key Market Segments & Applications

Telecom/Datcom
Process Control
Wireless Network
Measurement & Test

PXA15 Features and Benefits

Features

- UL, C-UL, VDE CE
- 2:1 and 4:1 Range Input
- Surface mount or Through hole

Benefits

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

Specifications	Single Output		
Max Output Power	15W		
Voltage Accuracy	+/-1%		
Voltage Adjustment (1)	+/-10%		
Minimum Load	None		
Line Regulation	+/-0.2%		
Load Regulation	+/-0.2%		
Ripple and Noise	See table		
Start up time	Nominal VIN and constant Resistive load	Power Up 30mS Remote ON/OFF 30mS	
Start up voltage 2:1 Input 24V/48V	17VDC/33VDC		
Start up voltage 4:1 Input 24V/48V	9VDC/18VDC		
Shut down voltage 2:1 Input 24V/48V	14.5VDC/30.5VDC		
Shut down voltage 4:1 24V/48V	8VDC/16VDC		
Remote on/off	Positive Logic: ON: Open or 3-15V, OFF Short or <1.2V Negative Logic: ON: Short or <1.2V, OFF: Open or 3-15V		
Efficiency	See table		
Temperature Coefficient	<+/-0.02%/°C		
Operating Temperature	-40°C to +85°C, derating necessary above 60°C		
Storage Temperature	-55°C to +125°C		
Thermal Shock	MIL-STD-810F		
Relative Humidity (non condensing)	5 to 95%		
Transient Response (25% step load change)	PXA < 200µS, PXA-W < 300µS recovery		
Overshoot Protection (Zener clamp)	120 - 130%		
Overcurrent and Short Circuit Protection	Typically at 150%, hiccup with self recovery		
Input Surge Voltage (Maximum for 100ms)	24V input: 50V, 48V input: 100V		
Reflected input ripple (peak to peak)	30mA Typ		
Isolation Voltage (Basic Insulation)	2250VDC minimum		
Isolation Resistance	10 ⁹ Ω minimum		
Isolation Capacitance (max)	2:1 Input, 1000pF/ 4:1 Input, 1500pF		
Typical Switching Frequency (Fixed)	2:1 Input	3.3V, 5V 12V, 15V	270kHz 470kHz
	4:1 Input	3.3V, 5V 12V, 15V	350kHz 400kHz
MTBF (BELLCORE TR-NWT-000332)	2:1 Input	2,200,000 hours	
	4:1 Input	1,322,000 hours	
Conducted and Radiated Emissions (2)	MIL-STD-810F EN55022 Level A		
Immunity (3)	EN61000-4-3, -4, -5, -6 Pref Criteria A		
Safety Agency Certifications	IEC60950-1, UL60950-1, EN60950-1, CE Mark		
Size mm (L x W x H)	27.9 x 23.9 x 8.5		
Weight (g)	10.5		
Warranty (yrs)	2		

Model Selector								
Model	Output Voltage V	Output Current A	Output Power W	Input Voltage V	Nominal Input Current mA	Efficiency %	Ripple and Noise mVp-p	Max Load Capacitance uF
4:1 INPUT Single Outputs								
PXA15-24WS3P3	3.3V	4.0A	13.2W	9 - 36VDC	680mA	85%	100mVp-p	1000uF
PXA15-48WS3P3	3.3V	4.0A	13.2W	18 - 75VDC	340mA	85%	100mVp-p	1000uF
PXA15-24WS05	5V	3.0A	15W	9 - 36VDC	754mA	87%	100mVp-p	1000uF
PXA15-48WS05	5V	3.0A	15W	18 - 75VDC	377mA	87%	100mVp-p	1000uF
PXA15-24WS12	12V	1.25A	15W	9 - 36VDC	793mA	86%	100mVp-p	330uF
PXA15-48WS12	12V	1.25A	15W	18 - 75VDC	397mA	86%	100mVp-p	330uF
PXA15-24WS15	15V	1.0A	15W	9 - 36VDC	763mA	86%	100mVp-p	220uF
PXA15-48WS15	15V	1.0A	15W	18 - 75VDC	382mA	86%	100mVp-p	220uF
2:1 INPUT								
PXA15-24S3P3	3.3V	3.5A	10.5W	18-36VDC	587mA	86%	75mVp-p	1000uF
PXA15-48S3P3	3.3V	3.5A	10.5W	36-75VDC	297mA	85%	75mVp-p	1000uF
PXA15-24S05	5V	3.0A	15W	18-36VDC	753mA	87%	75mVp-p	1000uF
PXA15-48S05	5V	3.0A	15W	36-75VDC	377mA	87%	75mVp-p	1000uF
PXA15-24S12	12V	1.25A	15W	18-36VDC	753mA	87%	100mVp-p	330uF
PXA15-48S12	12V	1.25A	15W	36-75VDC	377mA	87%	100mVp-p	330uF
PXA15-24S15	15V	1.0A	15W	18-36VDC	744mA	88%	100mVp-p	220uF
PXA15-48S15	15V	1.0A	15W	36-75VDC	372mA	88%	100mVp-p	220uF

Specification Notes:

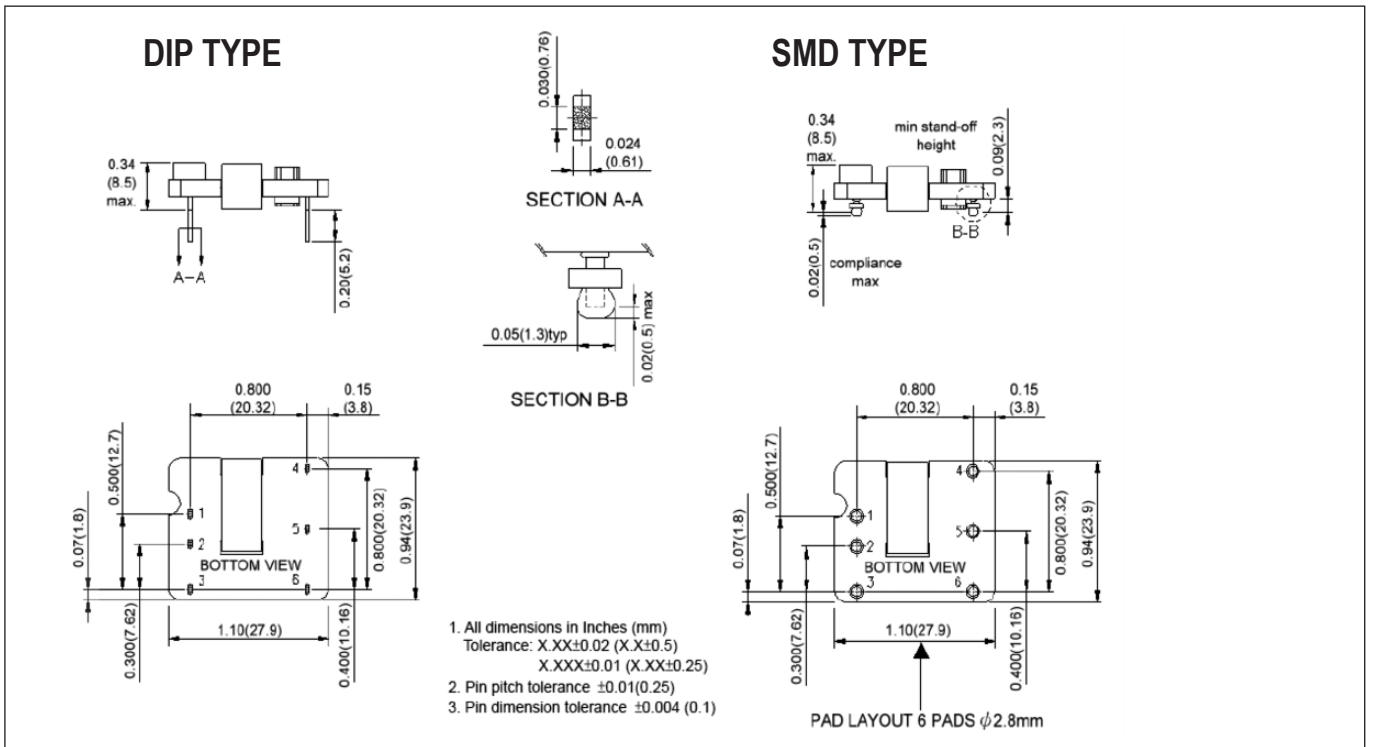
- (1) Output can be trimmed using an external resistor
- (2) To meet EN55022 Class B external filter components are required. See additional application note.
- (3) To meet EN61000-4-4, EN610004-5 an external filter capacitor is required. See additional application note.

Remote On/Off Options	
Suffix	Description
P	Positive Logic
N	Negative Logic
S	Surface Mount
T	Trim

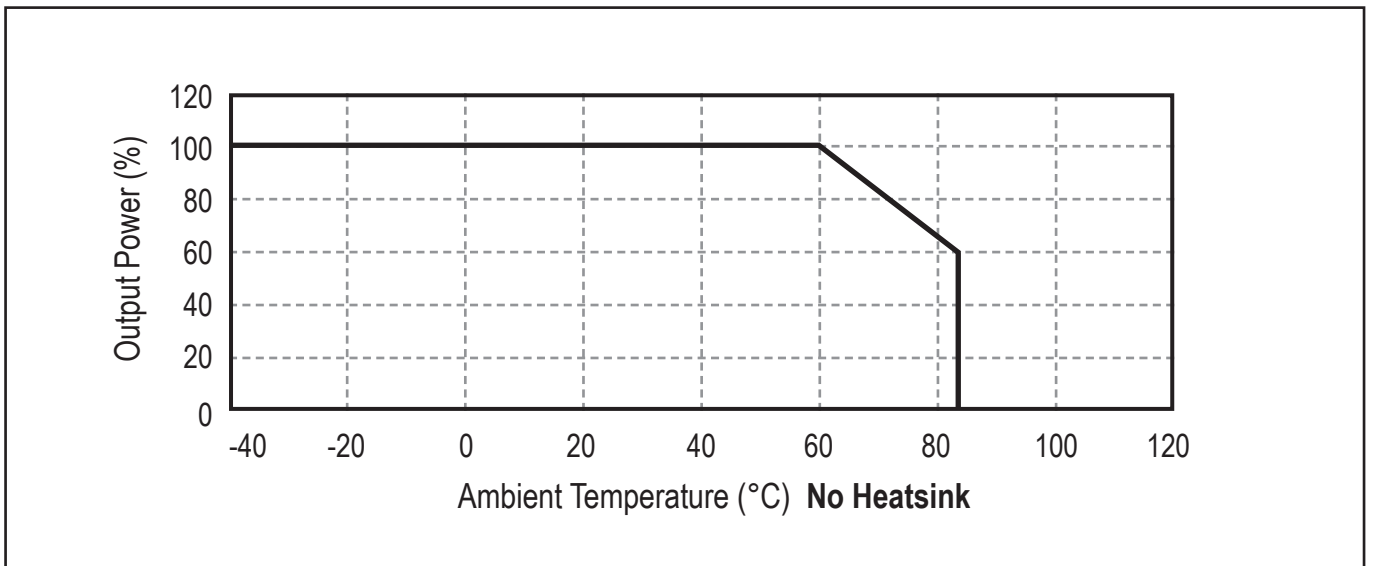
-NST or -NT as standard
Delete suffix if not required

Pinout - Single Output	
Pin#	Function
1	+ Input
2	- Input
3	Remote On/Off
4	+ Output
5	Trim
6	- Output

Outline Drawing PXA15 Series



Derating Curve PXA15 Series



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