

## 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	
Overvoltage 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 <sup>9</sup> Ω minimum	
Isolation Capacitance (max)		2:1 Input, 1000pF/ 4:1 Input, 1500pF	
Typical Switching Frequency (Fixed)	2:1 Input	3.3V, 5V	270kHz
		12V, 15V	470kHz
	4:1 Input	3.3V, 5V	350kHz
		12V, 15V	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		IEC/UL/CSA/EN 62368-1, 60950-1, CE Mark	
Size mm (L x W x H)		27.9 x 23.9 x 8.5	
Weight (g)		10.5	
Warranty (yrs)		3	

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
<b>4:1 INPUT      Single Outputs</b>								
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
<b>2:1 INPUT</b>								
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:**

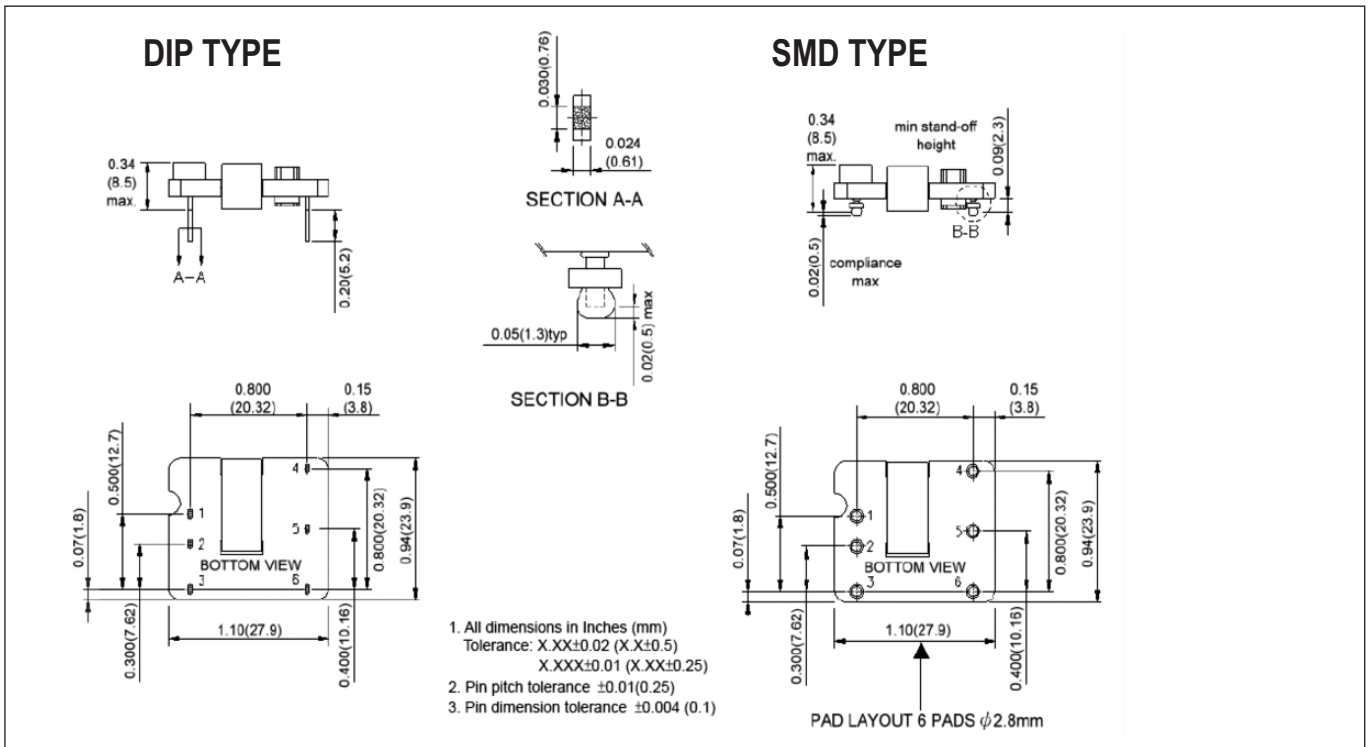
- (1) Output can be trimmed using an external resistor
- (2) To meet EN55022 Class B external filter components are required. See additional application note.
- (3) To meet EN61000-4-4, EN610004-5 an external filter capacitor is required. See additional application note.

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

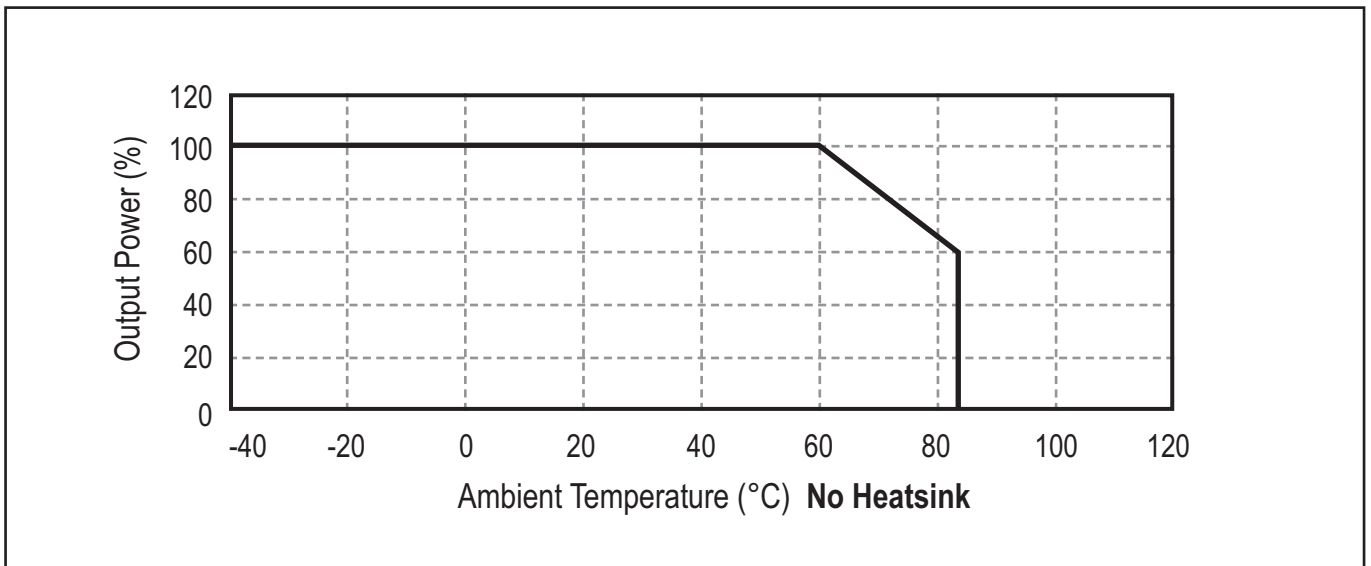
-NST or -NT as standard  
Delete suffix if not required

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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