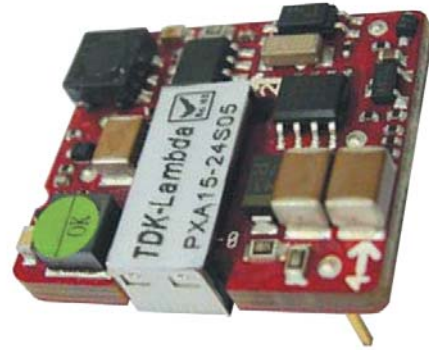


## Single Output 15W DC-DC Converters

### Features

- ◆ Industry Standard 1" x 1" Footprint
- ◆ Through hole or Surface Mount versions
- ◆ Agency Approved
- ◆ 12V, 24V and 48V Inputs
- ◆ Wide range input (PXA15W)



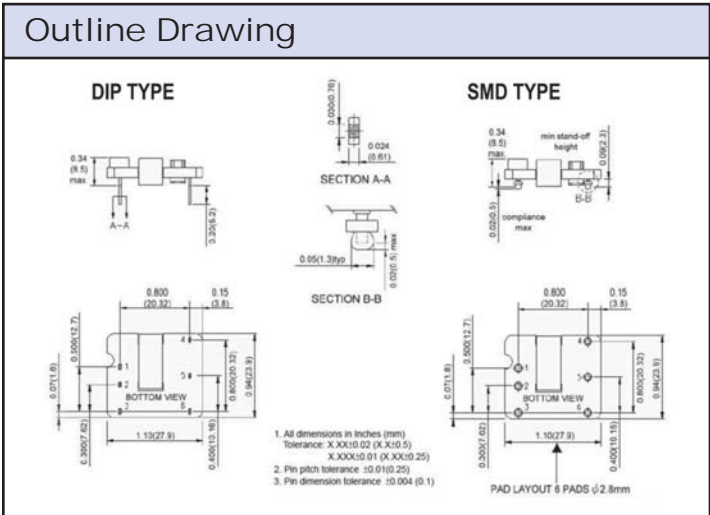
### Key Market Segments & Applications



| Specifications                            |       | PXA15   | PXA15W                          |
|---|-------|---|---------------------------------|
| Model                                     |       | PXA15   | PXA15W                          |
| Max Output Power                          | W     | 15W   | 15W                             |
| Voltage Accuracy                          | %     |   | ±1%                             |
| Voltage Adjustment (T Suffix)             | %     |   | ±10%                            |
| Minimum Load                              | -     |   | None                            |
| Line Regulation                           | %     |   | ±0.2%                           |
| Load Regulation (0% to 100%)              | %     |   | ±0.2%                           |
| Start up time                             | ms    |   | 30ms                            |
| Remote on/off                             | -     | Negative Logic /N (standard): ON: Short or <1.2V, OFF: Open or 3-15V<br>Positive Logic /P (optional): ON: Open or 3-15V, OFF Short or <1.2V |                                 |
| Temperature Coefficient                   | °C    |   | <±0.02%/°C                      |
| Operating Temperature                     | °C    | -40 to +85°C (See derating curves)  |                                 |
| Storage Temperature                       | °C    | -55 to 125°C  |                                 |
| Thermal Shock                             | -     | MIL-STD-810F  |                                 |
| Relative Humidity (non condensing)        | %     | 5 to 95%  |                                 |
| Transient Response (25% step load change) | µs    | 200µs recovery  | 300µs recovery                  |
| Overvoltage Protection (Zener clamp)      | V     | 1.5-3.3V: 3.9V, 5V: 6.2V, 12V: 15V, 15V: 18V  |                                 |
| Overcurrent and Short Circuit Protection  | %     | Typically at 150%, hiccup with self recovery  |                                 |
| Input Surge Voltage (Maximum for 100ms)   | VDC   | 12V input: 36V, 24V input: 50V, 48V input: 100V   |                                 |
| Reflected input ripple (peak to peak)     | mA    | 30mA  |                                 |
| Isolation Voltage                         | VDC   | 2250VDC minimum   |                                 |
| Isolation Resistance                      | Ω     | 109 Ohms minimum  |                                 |
| Isolation Capacitance (max)               | pF    | 1000pF  | 1500pF                          |
| Typical Switching Frequency (Fixed)       | kHz   | 3.3, 5V: 270kHz; 12,15V: 470kHz   | 3.3, 5V: 350kHz; 12,15V: 400kHz |
| MTBF (BELLCORE TR-NWT-000332)             | Hours | 2,200,000   | 1,322,000                       |
| Vibration                                 | -     | MIL-STD-810F  |                                 |
| Conducted and Radiated Emissions          | -     | See Installation Diagrams   |                                 |
| Immunity                                  | -     | EN61000-4-3,-4,-5,-6  |                                 |
| Safety Agency Approval                    | -     | IEC60950-1, UL60950-1, EN60950-1, CE Mark   |                                 |
| Size (L x W x H)                          | in    | 1.1 x 0.94 x 0.34"  |                                 |
| Mounting                                  | -     | Through Hole standard; Surface Mount (option "S")   |                                 |
| Weight                                    | g     | 10.5  |                                 |
| Warranty                                  | yrs   | Two Years   |                                 |

Notes:  
See installation manual

| Model Selector       |                    |                  |                     |                  |                           |                            |                |                               |
|----------------------|--------------------|------------------|---------------------|------------------|---------------------------|----------------------------|----------------|-------------------------------|
| Output Voltage (VDC) | Output Current (A) | Output Power (W) | Input Voltage (VDC) | Model            | Ripple & Noise (Pk-Pk mV) | Nominal Input Current (mA) | Efficiency (%) | Maximum Load Capacitance (uF) |
| 3.3                  | 4                  | 13.2             | 9 - 36              | PXA15-24WS3P3/NT | 100                       | 680                        | 85             | 1000                          |
| 3.3                  | 3.5                | 11.5             | 18 - 36             | PXA15-24S3P3/NT  | 75                        | 587                        | 86             | 1000                          |
| 3.3                  | 4                  | 13.2             | 18 - 75             | PXA15-48WS3P3/NT | 100                       | 340                        | 85             | 1000                          |
| 3.3                  | 3.5                | 11.5             | 36 - 75             | PXA15-48S3P3/NT  | 75                        | 297                        | 85             | 1000                          |
| 5                    | 3                  | 15               | 9 - 36              | PXA15-24WS05/NT  | 100                       | 754                        | 87             | 1000                          |
| 5                    | 3                  | 15               | 18 - 36             | PXA15-24S05/NT   | 75                        | 753                        | 87             | 1000                          |
| 5                    | 3                  | 15               | 18 - 75             | PXA15-48WS05/NT  | 100                       | 377                        | 87             | 1000                          |
| 5                    | 3                  | 15               | 36 - 75             | PXA15-48S05/NT   | 75                        | 377                        | 87             | 1000                          |
| 12                   | 1.3                | 15.6             | 9 - 36              | PXA15-24WS12/NT  | 100                       | 793                        | 86             | 330                           |
| 12                   | 1.25               | 15               | 18 - 36             | PXA15-24S12/NT   | 100                       | 753                        | 87             | 330                           |
| 12                   | 1.3                | 15.6             | 18 - 75             | PXA15-48WS12/NT  | 100                       | 397                        | 86             | 330                           |
| 12                   | 1.25               | 15               | 36 - 75             | PXA15-48S12/NT   | 100                       | 377                        | 87             | 330                           |
| 15                   | 1                  | 15               | 9 - 36              | PXA15-24WS15/NT  | 100                       | 763                        | 86             | 220                           |
| 15                   | 1                  | 15               | 18 - 36             | PXA15-24S15/NT   | 100                       | 744                        | 88             | 220                           |
| 15                   | 1                  | 15               | 18 - 75             | PXA15-48WS15/NT  | 100                       | 382                        | 86             | 220                           |
| 15                   | 1                  | 15               | 36 - 75             | PXA15-48S15/NT   | 100                       | 372                        | 88             | 220                           |



### Pinout

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

### Options

|           |                              |
|-----------|------------------------------|
| N         | Negative logic remote on/off |
| P         | Positive logic remote on/off |
| S         | Surface mount termination    |
| T         | Trim - remote adjust         |
| Preferred | Example PXA15-24WS3P3/NT     |

### Other Industrial Products

|      |                                  |
|------|----------------------------------|
| CC-E | 1.5 - 30W, 5, 12, 24 & 48V DC-DC |
| PX   | 10 - 60W, 12, 24 & 48V DC-DC     |

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/px-series.htm](http://us.tdk-lambda.com/lp/products/px-series.htm)

