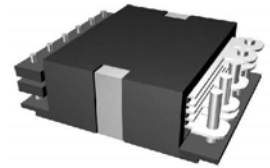


## HIGH FREQUENCY 300W PLANAR TRANSFORMERS

### PT30 SERIES



#### Features:

- Power rating up to 300 watts
- High efficiency
- High power density
- Footprint: 29.6 mm x 25.40 mm
- Low profile: 9.0 mm and 10 mm
- High operational isolation: 1800 Vdc
- High frequency: 200 kHz - 700 kHz
- Operating temperature: -40°C to +125°C

#### Options:

- Weight: 21.7 grams
- Tube: 15/tube

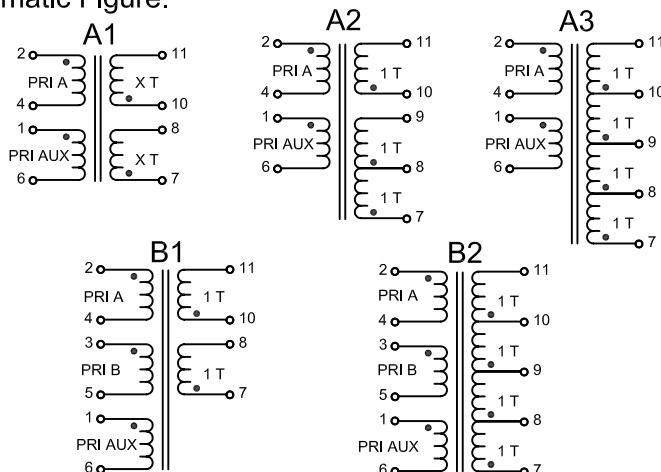
#### Common Applications:

- High efficiency, high power density DC/DC converters
- Forward, full-bridge, half-bridge, and push-pull DC/DC converters
- A primary auxiliary winding or a small gap can be added in order to expand configuration options
- DC/DC converters with input voltage between 18V and 75V and output voltage from 1.0V to 52V
- Telecommunication, industrial control systems, automotive and heavy equipment vehicle systems

#### Electrical Characteristics:

| Part Number | Primary Inductance (μH Min) | Leakage Inductance (μH Max) | DC Resistance (m Ω Max) |     |      | Turns Ratio    | Primary Second Hipot | Figure | M. Height |
|-------------|-----------------------------|-----------------------------|-------------------------|-----|------|----------------|----------------------|--------|-----------|
|             |                             |                             | A                       | B   | AUX. |                |                      |        |           |
| PT30S0402   | 72.00                       | 0.26                        | 10                      | N/A | N/A  | 4T             | 1800VDC              | A1     | 9.0mm     |
| PT30S0502   | 112.5                       | 0.26                        | 12                      | N/A | 468  | 5T (5T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0602   | 162.0                       | 0.26                        | 20                      | N/A | 154  | 6T (2T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0702   | 220.5                       | 0.26                        | 48                      | N/A | 158  | 7T (3T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0802   | 288.0                       | 0.26                        | 58                      | N/A | N/A  | 8T             | 1800VDC              | A2     | 9.0mm     |
| PT30S0403   | 72.00                       | 0.26                        | 10                      | N/A | N/A  | 4T             | 1800VDC              |        | 9.0mm     |
| PT30S0503   | 112.5                       | 0.26                        | 12                      | N/A | 468  | 5T (5T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0603   | 162.0                       | 0.26                        | 20                      | N/A | 154  | 6T (2T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0703   | 220.5                       | 0.26                        | 48                      | N/A | 158  | 7T (3T/aux)    | 1800VDC              | A3     | 9.0mm     |
| PT30S0803   | 288.0                       | 0.26                        | 58                      | N/A | N/A  | 8T             | 1800VDC              |        | 9.0mm     |
| PT30S0404   | 72.00                       | 0.26                        | 10                      | N/A | N/A  | 4T             | 1800VDC              |        | 9.0mm     |
| PT30S0504   | 112.5                       | 0.26                        | 12                      | N/A | 468  | 5T (5T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0604   | 162.0                       | 0.26                        | 20                      | N/A | 154  | 6T (2T/aux)    | 1800VDC              | A1     | 9.0mm     |
| PT30S0704   | 220.5                       | 0.26                        | 48                      | N/A | 158  | 7T (3T/aux)    | 1800VDC              |        | 9.0mm     |
| PT30S0804   | 288.0                       | 0.26                        | 58                      | N/A | N/A  | 8T             | 1800VDC              |        | 9.0mm     |
| PT30S0414   | 72.00                       | 0.28                        | 10                      | N/A | N/A  | 4T             | 1800VDC              |        | 9.0mm     |
| PT30S0514   | 112.5                       | 0.26                        | 12                      | N/A | 468  | 5T (5T/aux)    | 1800VDC              | B1     | 10.0mm    |
| PT30S0614   | 162.0                       | 0.26                        | 20                      | N/A | 154  | 6T (2T/aux)    | 1800VDC              |        | 10.0mm    |
| PT30S0714   | 220.5                       | 0.26                        | 48                      | N/A | 158  | 7T (3T/aux)    | 1800VDC              |        | 10.0mm    |
| PT30S0814   | 288.0                       | 0.26                        | 58                      | N/A | N/A  | 8T             | 1800VDC              |        | 10.0mm    |
| PT30D0802   | 288.0                       | 0.26                        | 10                      | 10  | N/A  | 4T & 4T        | 1800VDC              | B2     | 10.0mm    |
| PT30D1002   | 450.0                       | 0.26                        | 12                      | 12  | 233  | 5T&5T (5T/aux) | 1800VDC              |        | 10.0mm    |
| PT30D1202   | 648.0                       | 0.26                        | 20                      | 20  | 76   | 6T&6T (2T/aux) | 1800VDC              |        | 10.0mm    |
| PT30D1402   | 882.0                       | 0.26                        | 48                      | 48  | 78   | 7T&7T (3T/aux) | 1800VDC              |        | 10.0mm    |
| PT30D1602   | 115.2                       | 0.26                        | 58                      | 58  | N/A  | 8T & 8T        | 1800VDC              | A1     | 10.0mm    |
| PT30D0804   | 288.0                       | 0.26                        | 10                      | 10  | N/A  | 4T & 4T        | 1800VDC              |        | 10.0mm    |
| PT30D1004   | 450.0                       | 0.26                        | 12                      | 12  | 233  | 5T&5T (5T/aux) | 1800VDC              |        | 10.0mm    |
| PT30D1204   | 648.0                       | 0.26                        | 20                      | 20  | 76   | 6T&6T (2T/aux) | 1800VDC              |        | 10.0mm    |
| PT30D1404   | 882.0                       | 0.26                        | 48                      | 48  | 78   | 7T&7T (3T/aux) | 1800VDC              | A1     | 10.0mm    |
| PT30D1604   | 115.2                       | 0.26                        | 58                      | 58  | N/A  | 8T & 8T        | 1800VDC              |        | 10.0mm    |

#### Schematic Figure:



#### Technical Information:

1. Inductance is measured with both primary windings connected in series where applicable (type D: 2 to 5 with 3 and 4 shorted, type S: 2 to 4 only)
2. Leakage inductance is measured with both primary windings connected in series where applicable and all other windings shorted
3. Specification typical at TA=25°C

#### Mechanical Characteristics (mm):

