

High Frequency Wire Wound Transformers

ER7.5 Platforms - SMT - PA4470.XXXNL



- Power Range:** Up to 1.8 W
- Height:** 6.0 mm Max
- Footprint:** 9.5 mm x 8.0 mm Max
- Topology:** Flyback

| Pulse PN | Electrical Specifications @25°C - Operating Temperature -40°C to 130°C ¹ | | | Schematic | | |
|--------------|---|----------------------|---------------------|------------|----------|--|
| PA4470.001NL | Pri. Inductance | (4-3) | 216 | uH +/- 25% | | |
| | Lk. Inductance | (4-3) | 3.5 | uH Max | | |
| | DCR | w/ (5,6,7,8) shorted | (4-3) | 2.6 | Ohms Max | 33-57v 200kHz 10v/50mA |
| | | | (2-1) | 2.72 | | |
| | | | (5-6) | 0.11 | | |
| | | | (7-8) | 0.12 | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | |
| K1 Factor | 7187 | | Flyback Transformer | | | |
| PA4470.002NL | Pri. Inductance | (4-3) | 216 | uH +/- 25% | | |
| | Lk. Inductance | (4-3) | 3.5 | uH Max | | |
| | DCR | w/ (5,6,7,8) shorted | (4-3) | 2.6 | Ohms Max | 33-57v 200kHz 10v/50mA |
| | | | (2-1) | 1.8 | | |
| | | | (5-6) | 0.32 | | |
| | | | (7-8) | 0.32 | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | |
| K1 Factor | 7187 | | Flyback Transformer | | | |
| PA4470.003NL | Pri. Inductance | (4-3) | 216 | uH +/- 25% | | |
| | Lk. Inductance | (4-3) | 3.5 | uH Max | | |
| | DCR | w/ (5,6,7,8) shorted | (4-3) | 2.6 | Ohms Max | 33-57v 200kHz 10v/50mA |
| | | | (2-1) | 2.72 | | |
| | | | (5-6) | 1.2 | | |
| | | | (7-8) | 1.2 | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | |
| K1 Factor | 7187 | | Flyback Transformer | | | |
| PA4470.004NL | Pri. Inductance | (4-3) | 21.8 | uH +/- 25% | | |
| | Lk. Inductance | (4-3) | 0.5 | uH Max | | |
| | DCR | w/ (5,6,7,8) shorted | (4-3) | 0.3 | Ohms Max | 10-14v 200kHz 10v/50mA |
| | | | (2-1) | 1.6 | | |
| | | | (5-6) | 0.11 | | |
| | | | (7-8) | 0.12 | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | |
| K1 Factor | 2357 | | Flyback Transformer | | | |

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| Pulse PN | Electrical Specifications @25° C - Operating Temperature -40° C to 130° C 1 | | | | Schematic | | |
|--------------|---|-------------------------------|------|------------|-----------|--|--|
| PA4470.005NL | Pri. Inductance | (4-3) | 21.8 | uH +/- 25% | | | |
| | Lk. Inductance | (4-3) w/ (5,6,7,8) shorted | 0.5 | uH Max | | | |
| | DCR | (4-3) | 0.3 | Ohms Max | | | |
| | | (2-1) | 1.6 | | | | |
| | | (5-6) | 0.15 | | | | |
| | | (7-8) | 0.16 | | | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | | |
| K1 Factor | 2357 | | | | | | |
| PA4470.006NL | Pri. Inductance | (4-3) | 21.8 | uH +/- 25% | | | |
| | Lk. Inductance | (4-3) w/ (5,6,7,8) shorted | 0.5 | uH Max | | | |
| | DCR | (4-3) | 0.3 | Ohms Max | | | |
| | | (2-1) | 1.6 | | | | |
| | | (5-6) | 1.15 | | | | |
| | | (7-8) | 1.2 | | | | |
| Hi-Pot | Pri-Sec | 1650 | Vdc | | | | |
| K1 Factor | 2357 | | | | | | |

Notes:

- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- For flyback topology applications, it is necessary to ensure that the transformer will not saturate in the application. The peak flux density (Bpk) should remain below 2600Gauss. To calculate the peak flux density use the following formula:
 $B_{pk} \text{ (Gauss)} = K1_Factor * I_{pk} \text{ (A)}$
- In high volt- μ sec applications, it is important to calculate the core loss of the transformer. Approximate transformer core loss can be calculated as:
 $CoreLoss \text{ (W)} = 3.84E-14 * (Freq_kHz)^{1.63} * (\Delta B_Gauss)^{2.63}$
 where ΔB can be calculated as:
 For Flyback Topology: $\Delta B = K1_Factor * \Delta I \text{ (A)}$
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA4470.001NL becomes PA4470.001NLT). Pulse complies with industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=24mm), pitch (Po=16mm) and depth (Ko=5.8mm).

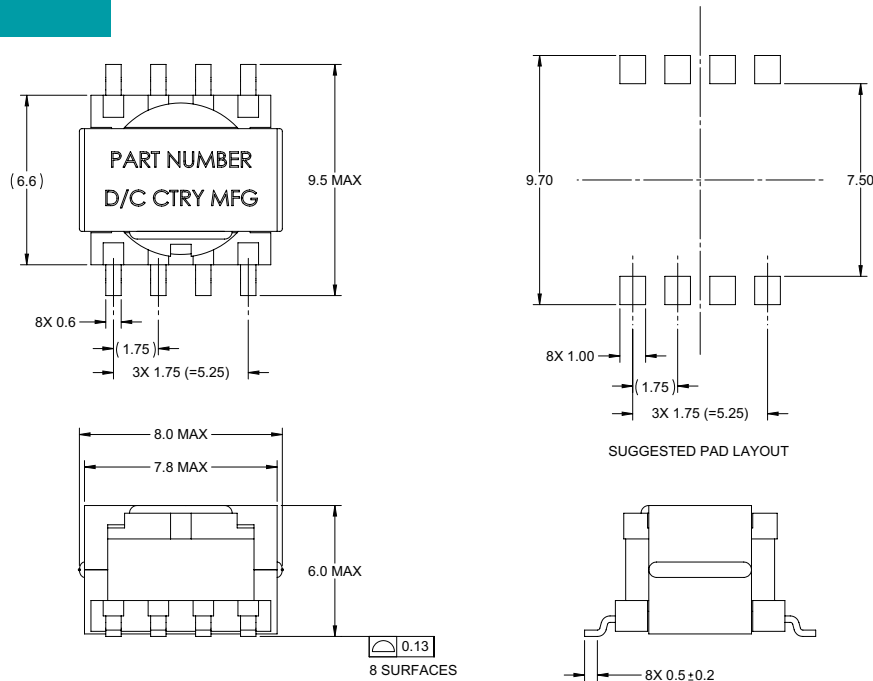
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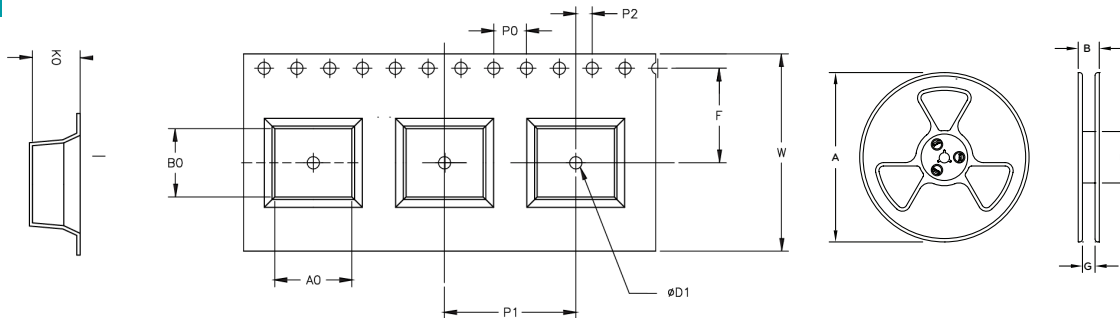


Mechanical

PA4470.XXXNL



TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST

| | REEL SIZE (mm) | | | | | | TAPE SIZE (mm) | | | | | | | | QTY PCS/REEL | |
|--------------|----------------|----------------|-----|----------------|----|-----|----------------|------|----------------|----------------|-----|----|-----|-----|-----------------|----------------|
| | A | A ₀ | B | B ₀ | G | N | E | F | P ₁ | P ₀ | P | W | T | K | | K ₀ |
| PA4470.XXXNL | Ø330 | 9.4 | N/A | 8.3 | 12 | 100 | N/A | 11.5 | N/A | 4 | N/A | 24 | N/A | 5.8 | 3.3 | 700 |

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