

Prem's **SPP-4105** is a switchmode, through-hole, PCB-mounting transformer. It is designed to be used with a Power Integrations DPA426RN integrated chip in a 60 W DC-to-DC forward converter application.

- Power over Ethernet plus (PoE+) and telecom applications (36–75 VDC input)
- Approximately 91.5% efficient with synchronous rectification at 36 VDC
- UL 94V-0-rated bobbin
- RoHS compliant

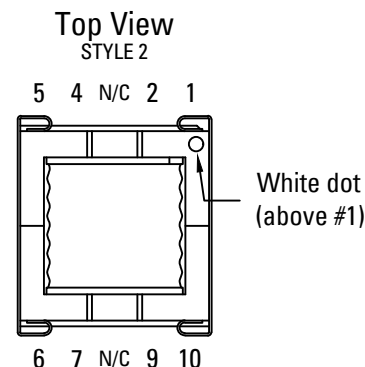
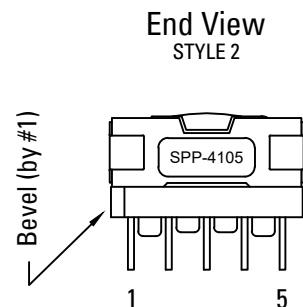
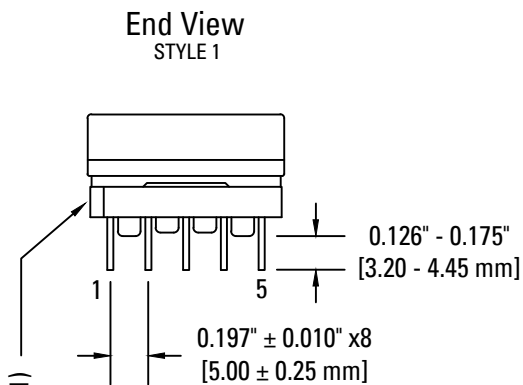
## SPP-4105 Data Sheet

### Style Note:

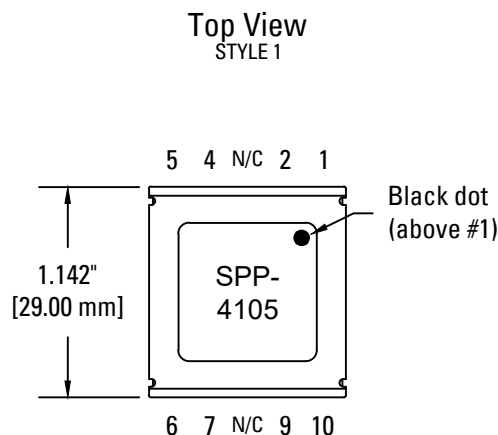
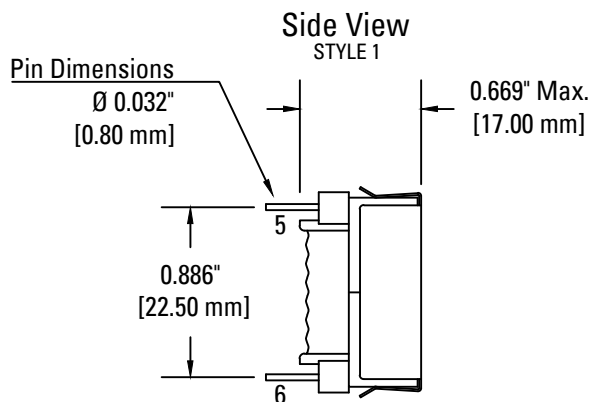
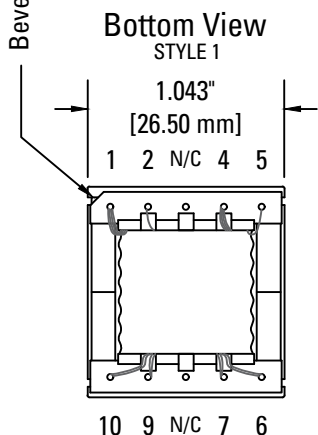
This unit is shown with the two possible core clamp & label styles. Both styles meet the dimensions shown.

STYLE 1 is the default style and uses a single-piece cover clamp. The label is on top of the clamp and the dot above #1 is black.

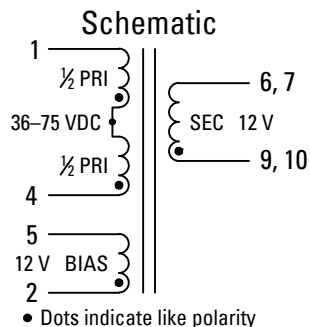
STYLE 2 is the alternate style and uses a two-piece core yoke. The label is on the side of the core and the dot above #1 is white.



**See Style Note in right sidebar.**



**All dimensions for reference only, unless otherwise specified.**



Designed for use with a Power Integrations DPA426RN integrated chip in 60 W applications.

Input: 36–75 VDC @ 300 kHz  
Bias: 12 V  
Single Output: 12 V @ 5 A

Turns Ratio:  
(4 - 1) : (9 - 6) = 1 : 0.600  
(4 - 1) : (10 - 7) = 1 : 0.600  
(4 - 1) : (2 - 5) = 1 : 0.500

### ELECTRICAL SPECIFICATIONS

DCR (4 - 1)	0.022 Ω Max.
DCR (2 - 5)	0.100 Ω Max.
DCR (9, 10 - 6, 7)	0.014 Ω Max.
Primary Inductance (4 - 1) @ 0.4 V, 300 kHz	200 μH ± 25%
Leakage Inductance (4 - 1) @ 0.4 V, 300 kHz, with (2 - 5), (9 - 6), & (10 - 7) shorted	1 μH Max.
Resonant Frequency (4 - 1), with other windings open	2.2 MHz Min.
Dielectric Strength (Primary & Bias to Secondary)	1500 VDC (1 second)

10/17/19 | -3 | Updated data sheet fmt.; added new core clamp unit style; added missing turns ratio parameters; updated pin length & diameter dimensions; corrected secondary DCR notation & value | AG

6/14/16 | -2 | Updated entire dwg. | TJK

7/14/10 | -1 | Changed length dimension from 1.07" to 1.043" | TJK

DATE | ISS. | REVISION | BY

Designed by: TJK 3/18/10  
Drawn by: AG 9/24/19  
Checked by: DB & TJK  
Drawing no.: SPP-4105-3

**PREM<sup>®</sup>**  
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