

Prem's **SPP-4107** is a switchmode, through-hole, PCB-mounting transformer. It is designed to be used with a Power Integrations DPA426RN integrated chip in a 70 W DC-to-DC forward converter application.

- Power over Ethernet plus (PoE+) and telecom applications (36–75 VDC input)
- UL 94V-0-rated bobbin
- RoHS compliant
- High efficiency of approx. 90% at 36 VDC with a 300 kHz switching frequency using simple self-driven synchronous rectification

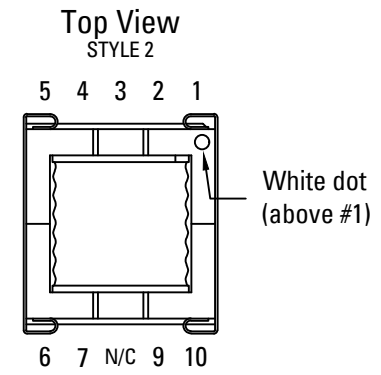
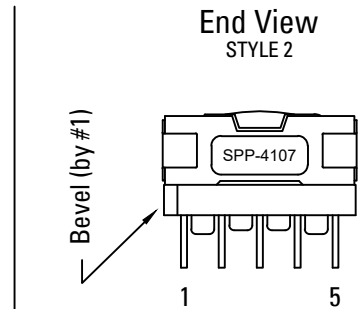
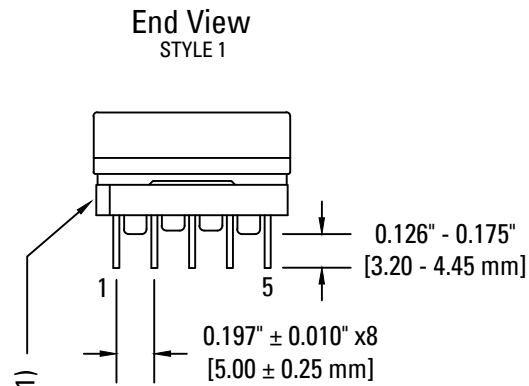
SPP-4107 Data Sheet

Style Note:

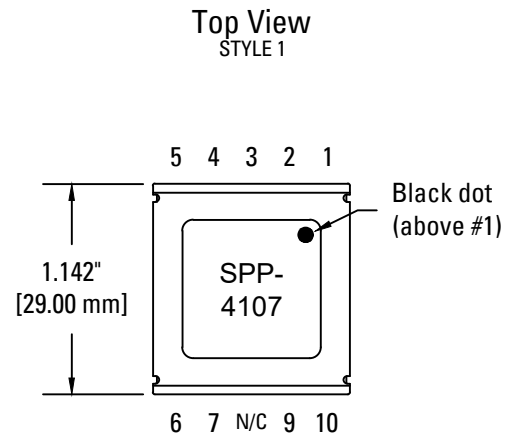
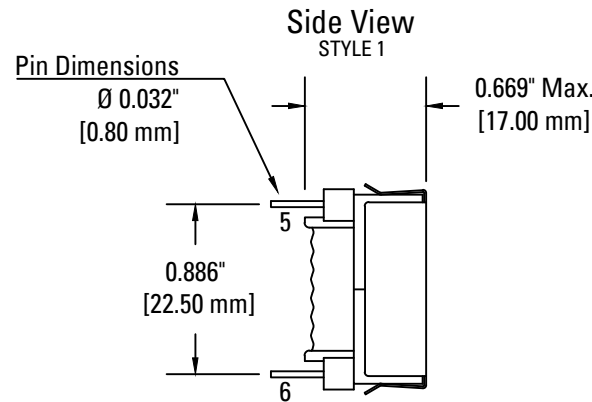
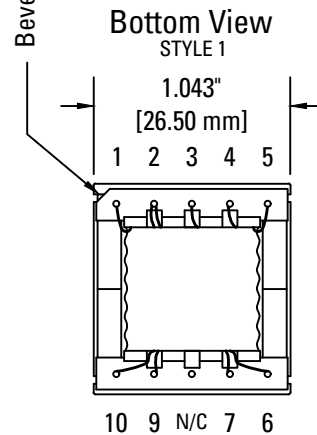
This unit is shown with the two possible core clamp & label styles. Both styles meet the dimensions shown.

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.

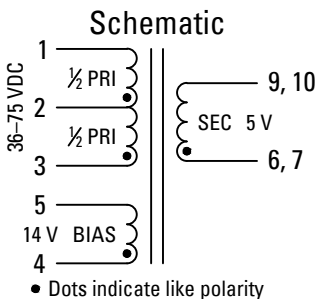
STYLE 2 is the alternate style and uses a two-piece core yoke. The label is on the side of the core and the dot above #1 is white.



See Style Note in right sidebar.



All dimensions for reference only.



Designed for use with a Power Integrations DPA426RN integrated chip in 70 W applications.

Input: 36–75 VDC @ 400 kHz
Bias: 14 V
Single Output: 5 V @ 14 A

Turns Ratio:
(1 - 3) : (6 - 9) = 1 : 0.167
(1 - 3) : (7 - 10) = 1 : 0.167
(1 - 3) : (4 - 5) = 1 : 0.417

ELECTRICAL SPECIFICATIONS

DCR (3 - 1)	19.2 - 28.8 mΩ
DCR (4 - 5)	69.6 - 104.4 mΩ
DCR (6 - 9)	1.44 - 2.16 mΩ Each
DCR (7 - 10)	
Primary Inductance (3 - 1) @ 0.4 V, 400 kHz	130 μH ± 10%
Leakage Inductance (3 - 1) @ 0.4 V, 400 kHz, with (4 - 5), (6 - 9), & (7 - 10) shorted	10 μH Max.
Resonant Frequency (3 - 1), with other windings open	3.0 MHz Min.
Dielectric Strength (Primary to Bias, Secondaries, & Core)	1500 VDC (1 second)

12/14/18 | -4 | Clarified dielectric strength test points | AG

10/4/18 | -3 | Updated data sheet fmt.; added new core clamp unit STYLE 1; corrected DCR values | 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 4/12/10
Drawn by: AG 10/5/18
Checked by: DB & TJK
Drawing rev.: SPP-4107-4

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