LAMINATED TRANSFORMERS

Pulse
A TECHNITROL COMPANY

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LAMINATED TRANSFORMERS OVERVIEW

Pulse
A TECHNITROL COMPANY

With the addition of **era**'s encapsulated 50/60Hz transformers to the existing line of Pulse open frame transformers, Pulse now offers a complete line of laminated transformers for all your low power, linear transformer needs. With power ratings from 0.08VA to 175VA, fully encapsulated transformers, split bobbin designs, and a wide variety of domestic and international agency approvals, Pulse is truly the one stop shop for all your 50/60Hz needs.

Advantages of Encapsulated Transformers:

- Better heat dissipation achieved through vacuum encapsulation, resulting in more output power from a smaller, more compact design.
- Vacuum encapsulation provides protection against external influences (e.g. wash operations) and mechanical stress (e.g. vibration). It also reduces the potential of noise through vibration.
- Dimensional accuracy of each transformer guaranteed by stable and controlled manufacturing processes, allowing for automatic pick and place operations.

This catalog serves as an overview for the Pulse Laminated Transformer product line. Please contact Pulse Power Applications Engineering for more information. For Pulse´s complete line of Power Inductors, Transformers, Chokes and Current Sense Magnetics, please see the Switching Power Magnetics catalog.

NOTE: *For additional listings of Pulse Power magnetics, see other Power data sheets at this URL:* ***http://www.pulseeng.com/products/dataSheets.aspx***

OVERVIEW: LAMINATED TRANSFORMERS

Mini-Line THT* (EE20)

- Up to 0.5VA
- Temperature class t_a 70°C/B

Print-Line THT* (EI30-EI54)

- Up to16VA
- Temperature class t_a 70°C/B (EI 30 / EI 42)
- Temperature class t_a 40°C/B (EI 48 / EI 54)

Low Profile THT* (UI30)

- Up to 10VA
- Temperature class ta 40°C/B

With Mounting Brackets* (EI42-EI54)

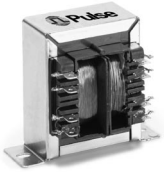
- Up to 16VA
- Temperature class t_a 70°C/B (EI 42)
- Temperature class t_a 40°C/B (EI 48 / EI 54)

Compact Power Supplies

- VDC or VAC secondary
- Temperature class t_a 40°C/B
- Din-rail Mounting

Printed Circuit Mount

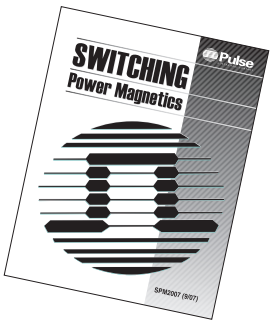
- International
- Split bobbin: single (ST) and dual primary (DST)
- Low profile
- Concentric vertical profile single (PC) and dual primary (DPC)



Chassis Mount

- International
- Split bobbin: single (241) and dual primary (DP241)

*Potted under vacuum, two-chamber bobbin, custom designs available upon request, THT = Through Hole.



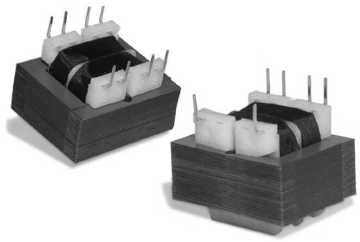
For all other Pulse Inductors and Transformers, check out Pulse's SWITCHING POWER MAGNETICS catalog.
To order, see our website:

www.pulseeng.com

Go to Products/Literature Request and ask for **SPM2007** catalog

LAMINATED TRANSFORMERS

Low Frequency, Open-Style Laminated, Split Bobbin, Horizontal Plug-In Series

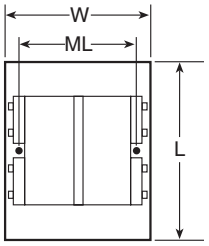


AGENCY APPROVALS

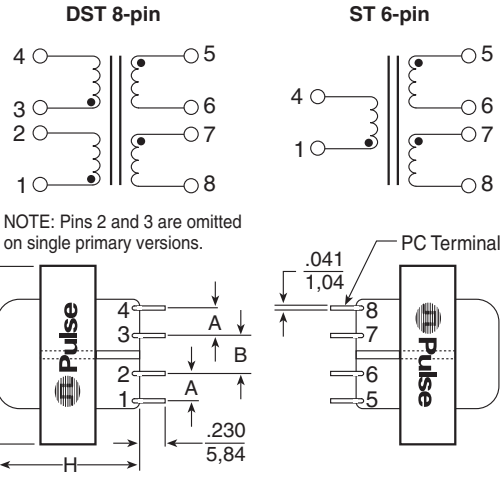
- UL, 506, File E73539
- UL 1446, File E179499
- UL 1585, File E169010 Class 2 Component Recognition
- CSA 22.2#66, File LR68051-2
- UL Recognized Class B

- High (2500V) isolation; 2500V$_{RMS}$ HIPOT
- Non-concentric design - eliminates ESS
- No crossover between primary/secondary winding leads
- Vacuum impregnated - withstands board washing systems and reduces audible noise
- Baked resin provides an environmentally-resistant finish
- Rugged construction - no additional mounting hardware
- Universal design, fits industry-standard footprints
- Available in single or dual primary

Mechanicals



Schematics



Dimensions (inches)

Size	VA	L	W	H	A	B	C	ML	Wt. (lb.)
2	1.1	1.13	1.13	0.94	0.25	0.25	1.20	----	0.17
3	2.4	1.38	1.13	1.19	0.25	0.25	1.20	----	0.25
4	6.0	1.63	1.31	1.31	0.25	0.35	1.28	1.06	0.44
5	12	1.86	1.56	1.44	0.30	0.40	1.41	1.25	0.70
6	20	2.25	1.86	1.44	0.30	0.40	1.60	1.50	0.80
7*	36	2.63	2.19	1.56	0.40	0.40	1.80	----	1.10

*Size 7 has 4 MTG. holes on 2.188" x 1.75" centers.

Part No. 115V-6Pin	Part No. 115/230V-8Pin	Secondary RMS Rating	
		Series	Parallel
ST2-10B41[1]	DST2-10B41[1]	10V C.T. @ 0.11A	5V @ 0.22A
ST3-10B1[1]	DST3-10B1[1]	10V C.T. @ 0.25A	5V @ 0.5A
ST4-10B2	DST4-10B2	10V C.T. @ 0.6A	5V @ 1.2A
ST5-10B3	DST5-10B3	10V C.T. @ 1.2A	5V @ 2.4A
ST6-10B4	DST6-10B4	10V C.T. @ 2A	5V @ 4A
ST7-10B51	DST7-10B51	10V C.T. @ 3.6A	5V @ 7.2A
ST2-12B42[1]	DST2-12B42[1]	12.6V C.T. @ 0.09A	6.3V @ 0.18A
ST3-12B5[1]	DST3-12B5[1]	12.6V C.T. @ 0.2A	6.3V @ 0.4A
ST4-12B6	DST4-12B6	12.6V C.T. @ 0.5A	6.3V @ 1.0A
ST5-12B7	DST5-12B7	12.6V C.T. @ 1.0A	6.3V @ 2.0A
ST6-12B8	DST6-12B8	12.6V C.T. @ 1.6A	6.3V @ 3.2A
ST7-12B52	DST7-12B52	12.6V C.T. @ 2.85A	6.3V @ 5.7A
ST2-16B43[1]	DST2-16B43[1]	16V CT. @ 0.07A	8V @ 0.14A
ST3-16B9[1]	DST3-16B9[1]	16V C.T.@ 0.15A	8V @ 0.3A
ST4-16B10	DST4-16B10	16V C.T.@ 0.4A	8V @ 0.8A
ST5-16B11	DST5-16B11	16V C.T.@ 0.8A	8V @ 1.6A
ST6-16B12	DST6-16B12	16V C.T.@ 1.25A	8V @ 2.5A
ST7-16B53	DST7-16B53	16V C.T.@ 2.25A	8V @ 4.5A
ST2-20B44[1]	DST2-20B44[1]	20V C.T. @ 0.055A	10V @ 0.11A
ST3-20B13[1]	DST3-20B13[1]	20V C.T. @ 0.12A	10V @ 0.24A
ST4-20B14	DST4-20B14	20V C.T. @ 0.3A	10V @ 0.6A
ST5-20B15	DST5-20B15	20V C.T. @ 0.6A	10V @ 1.2A
ST6-20B16	DST6-20B16	20V C.T. @ 1A	10V @ 2A
ST7-20B54	DST7-20B54	20V C.T. @ 1.8A	10V @ 3.6A
ST2-24B45[1]	DST2-24B45[1]	24V C.T. @ 0.045A	12V @ 0.09A
ST3-24B17[1]	DST3-24B17[1]	24V C.T. @ 0.1A	12V @ 0.2A
ST4-24B18	DST4-24B18	24V C.T. @ 0.25A	12V @ 0.5A
ST5-24B19	DST5-24B19	24V C.T. @ 0.5A	12V @ 1.0A
ST6-24B20	DST6-24B20	24V C.T. @ 0.8A	12V @ 1.6A
ST7-24B55	DST7-24B55	24V C.T. @ 1.5A	12V @ 3.0A
ST2-28B46	DST2-28B46	28V C.T. @ 0.04A	14V @ 0.08A
ST3-28B21	DST3-28B21	28V C.T. @ 0.085A	14V @ 0.17A
ST4-28B22	DST4-28B22	28V C.T. @ 0.2A	14V @ 0.4A
ST5-28B23	DST5-28B23	28V C.T. @ 0.42A	14V @ 0.84A
ST6-28B24	DST6-28B24	28V C.T. @ 0.7A	14V @ 1.4A
ST7-28B56	DST7-28B56	28V C.T. @ 1.3A	14V @ 2.6A
ST2-36B47	DST2-36B47	36V C.T. @ 0.03A	18V @ 0.06A
ST3-36B25	DST3-36B25	36V C.T. @ 0.065A	18V @ 0.13A
ST4-36B26	DST4-36B26	36V C.T. @ 0.17A	18V @ 0.34A
ST5-36B27	DST5-36B27	36V C.T. @ 0.35A	18V @ 0.7A
ST6-36B28	DST6-36B28	36V C.T. @ 0.55A	18V @ 1.1A
ST7-36B57	DST7-36B57	36V C.T. @1.0A	18V @ 2.0A
ST2-48B48	DST2-48B48	48V C.T. @ 0.023A	24V @ .046A
ST3-48B29	DST3-48B29	48V C.T. @ 0.05A	24V @ 0.1A
ST4-48B30	DST4-48B30	48V C.T. @ 0.125A	24V @ 0.25A
ST5-48B31	DST5-48B31	48V C.T. @ 0.25A	24V @ 0.5A
ST6-48B32	DST6-48B32	48V C.T. @ 0.4A	24V @ 0.8A
ST7-48B58	DST7-48B58	48V C.T. @ 0.75A	24V @ 1.5A
ST2-56B49	DST2-56B49	56V C.T. @ 0.02A	28V @ 0.04A
ST3-56B33	DST3-56B33	56V C.T. @ 0.045A	28V @ 0.09A
ST4-56B34	DST4-56B34	56V C.T. @ 0.11A	28V @ 0.22A
ST5-56B35	DST5-56B35	56V C.T. @ 0.22A	28V @ 0.44A
ST6-56B36	DST6-56B36	56V C.T. @ 0.35A	28V @ 0.7A
ST7-56B59	DST7-56B59	56V C.T. @ 0.65A	28V @ 1.3A
ST2-120B50	DST2-120B50	120V C.T. @ 0.01A	60V @ 0.02A
ST3-120B37	DST3-120B37	120V C.T. @ 0.02A	60V @ 0.04A
ST4-120B38	DST4-120B38	120V C.T. @ 0.05A	60V @ 0.1A
ST5-120B39	DST5-120B39	120V C.T. @ 0.1A	60V @ 0.2A
ST6-120B40	DST6-120B40	120V C.T. @ 0.16A	60V @ 0.32A
ST7-120B60	DST7-120B60	120V C.T. @ 0.3A	60V @ 0.6A

[1] **UL 1585 approved, Class 2 - Not Wet, Class 3 - Wet**