



**Pulse**  
Specialty Components

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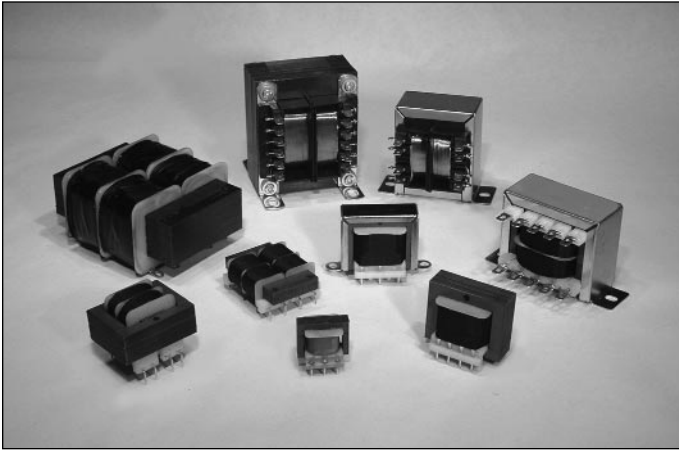


# **Power Transformers**

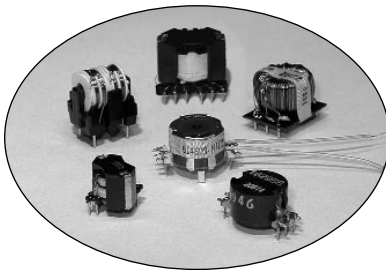
*and Design/Build  
Custom Magnetics  
Capability*



## ***Hundreds of standard-model power transformers. Nearly limitless custom-design choices.***

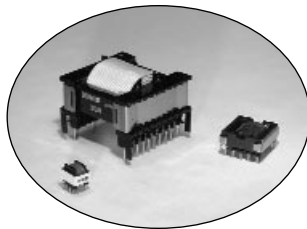


**A wide selection of standard-model power transformers;  
see pages 4 through 13 of this catalog.**



**Thru-hole pc-mount,  
surface-mount, low-profile,  
vertical and horizontal,  
chassis mount.**

**Bobbin wound ferrites,  
#14 -- #46 ga wire.**



**Custom laminated,  
hermetically sealed, encapsulated,  
custom terminals and mounting,  
MIL-STD-1553 pulse transformers,  
Fiber Channel transducers.**

The hundreds of catalog power transformers described in this catalog (pages 4 through 13) make up just a small portion of the magnetic solutions available to you from Pulse Specialty Components. Our custom design library includes hundreds of power and signal magnetic components built to unique customer requirements.

Does the transformer you require closely resemble but differ slightly from one of our standard models? Chances are we've built it before, and can quickly do so again. A quick modification might include any of the following:

- Frequencies up to 500 kHz
- Special input and output voltages
- Custom termination: connector, lead, line cord, lug
- Optional mounting: surface mount or thru-hole technology; chassis mount, angle bracket, welded plate
- PC-board mounts using square, round or rectangular pins; custom pinout configurations

Perhaps your application calls for more than a modification. And you can't design it yourself without knowing the best alternatives. We do. Custom design is a Pulse Specialty Component strength. Special-purpose bobbins, epoxy encapsulation, insulation, magnetic wire, terminations-- all are at our disposal and we build to suit -- to your requirements and to those of CSA, UL, VDE, and applicable MIL specifications.

Once designed, we build our custom transformers by the scores, hundreds, or thousands, in any of five ISO 9000 approved manufacturing facilities located in the US and abroad. Just as you need, we design, build, and ship your custom Pulse Specialty products on schedule, quickly and economically.



We also design and build subassemblies -- practically any component that involves a core and a winding. On the power side up to 12-gage wire and 1 kVa; on the signal side down to 46-gage wire and serving application frequencies beyond 1 GHz.

### ***What we do best.***

Few manufacturers can compete successfully in both low-quantity custom and high-quantity areas. Manufacturers typically do one or the other well. Pulse Specialty Components does both well thanks our domestic and offshore design and manufacturing resources.

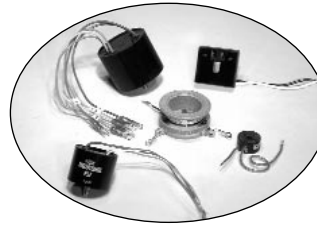
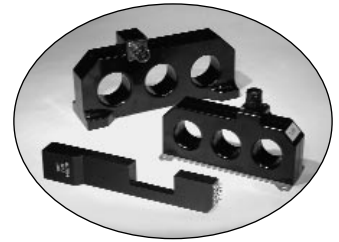
It all starts here, with extensive design engineering capability and well established domestic manufacturing accustomed to building to commercial, MIL, avionics, and space application requirements. Domestically, we're well-equipped to fill low- to mid-volume standard-part and custom orders and to perform quick modifications of standard parts. For higher-volume requirements, our design engineers shake hands with our manufacturing engineers in any of three offshore ISO 9000 manufacturing facilities owned and operated by Pulse.

The result is a rare combination: accessible and talented customer service people and design engineers supported by ***a choice of*** manufacturing facilities worldwide.

Domestic or offshore, our prototyping, pricing, scheduling, and delivery come together as if we were all in the same facility.

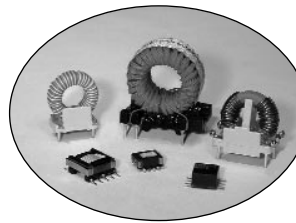
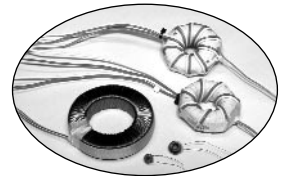
- Accessible, experienced design services.
- Rapid modification of standard models.
- Quick design/build of fully custom magnetics.
- Low- and high-volume manufacturing.
- Excellent pricing over a broad range of supply requirements.

**Current transformer modules.  
MIL/high rel and commercial.  
One- and three-phase.  
Custom mounting.**



**Assorted custom magnetic components and configurations.**

**Wound toroids, 0.5 to 3 in. OD  
#8 awg -- #46 awg**



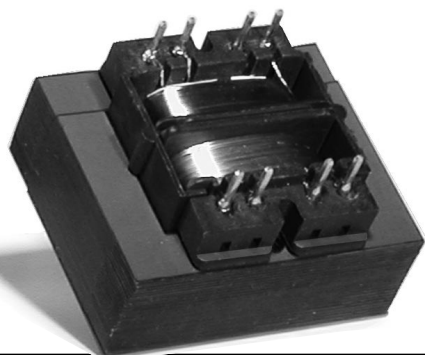
**Vertical-mount toroids.  
Thru-hole and surface-mount.**

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# International PC Plug-in Power Transformers



**UL, CSA, and  
TUV certified**

Part No. PC Mount	VA (Size)	Secondary RMS Rating	
		Series	Parallel
14A-2.5-10B1	2.5	10V C.T. @ 0.25A	5V @ 0.5A
14A-5.0-10B2	5.0	10V C.T. @ 0.5A	5V @ 1.0A
14A-10-10B3	10.0	10V C.T. @ 1.0A	5V @ 2.0A
14A-20-10B4	20.0	10V C.T. @ 2.0A	5V @ 4.0A
14A-30-10B5	30.0	10V C.T. @ 3.0A	5V @ 6.0A
14A-56-10B6	56.0	10V C.T. @ 5.6A	5V @ 11.2A
14A-2.5-12B7	2.5	12.6V C.T. @ 0.2A	6.3V @ 0.4A
14A-5.0-12B8	5.0	12.6V C.T. @ 0.4A	6.3V @ 0.8A
14A-10-12B9	10.0	12.6V C.T. @ 0.8A	6.3V @ 1.6A
14A-20-12B10	20.0	12.6V C.T. @ 1.6A	6.3V @ 3.2A
14A-30-12B11	30.0	12.6V C.T. @ 2.4A	6.3V @ 4.8A
14A-56-12B12	56.0	12.6V C.T. @ 4.4A	6.3V @ 8.8A
14A-2.5-16B13	2.5	16V C.T. @ 0.15A	8V @ 0.3A
14A-5.0-16B14	5.0	16V C.T. @ 0.31A	8V @ 0.62A
14A-10-16B15	10.0	16V C.T. @ 0.62A	8V @ 1.25A
14A-20-16B16	20.0	16V C.T. @ 1.25A	8V @ 2.5A
14A-30-16B17	30.0	16V C.T. @ 1.9A	8V @ 3.8A
14A-56-16B18	56.0	16V C.T. @ 3.5A	8V @ 7.0A
14A-2.5-20B19	2.5	20V C.T. @ 0.12A	10V @ 0.24A
14A-5.0-20B20	5.0	20V C.T. @ 0.25A	10V @ 0.5A
14A-10-20B21	10.0	20V C.T. @ 0.5A	10V @ 1.0A
14A-20-20B22	20.0	20V C.T. @ 1.0A	10V @ 2.0A
14A-30-20B23	30.0	20V C.T. @ 1.5A	10V @ 3.0A
14A-56-20B24	56.0	20V C.T. @ 2.8A	10V @ 5.6A
14A-2.5-24B25	2.5	24V C.T. @ 0.1A	12V @ 0.2A
14A-5.0-24B26	5.0	24V C.T. @ 0.21A	12V @ 0.42A
14A-10-24B27	10.0	24V C.T. @ 0.42A	12V @ 0.84A
14A-20-24B28	20.0	24V C.T. @ 0.83A	12V @ 1.66A
14A-30-24B29	30.0	24V C.T. @ 1.25A	12V @ 2.5A
14A-56-24B30	56.0	24V C.T. @ 2.33A	12V @ 4.66A
14A-2.5-28B31	2.5	28V C.T. @ 0.09A	14V @ 0.18A
14A-5.0-28B32	5.0	28V C.T. @ 0.18A	14V @ 0.36A
14A-10-28B33	10.0	28V C.T. @ 0.36A	14V @ 0.72A
14A-20-28B34	20.0	28V C.T. @ 0.72A	14V @ 1.44A
14A-30-28B35	30.0	28V C.T. @ 1.06A	14V @ 2.12A
14A-56-28B36	56.0	28V C.T. @ 2.0A	14V @ 4.0A
14A-2.5-36B37	2.5	36V C.T. @ 0.07A	18V @ 0.14A
14A-5.0-36B38	5.0	36V C.T. @ 0.14A	18V @ 0.28A
14A-10-36B39	10.0	36V C.T. @ 0.28A	18V @ 0.56A
14A-20-36B40	20.0	36V C.T. @ 0.56A	18V @ 1.12A
14A-30-36B41	30.0	36V C.T. @ 0.82A	18V @ 1.64A
14A-56-36B42	56.0	36V C.T. @ 1.56A	18V @ 3.12A

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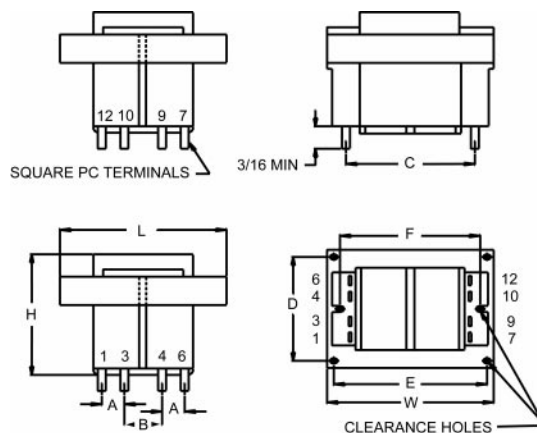
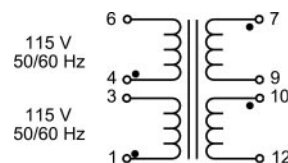
These transformers are built on dual bobbins with insulating shrouds to provide 4000V RMS isolation between primary and secondary. Non-concentric construction reduces primary-to-secondary capacitance and eliminates the need for an electrostatic shield.

## FEATURES

- PC board plug-in mounting
- Double reinforced insulation
- Dual bobbin; high (4000V) isolation
- Non-concentric design -- eliminates ESS
- No crossover contact between primary and secondary leads
- Vacuum impregnated -- withstands board washing systems and reduces audible noise
- Baked resin -- provides fully cured and environmentally resistant finish
- May be connected in series or parallel

## AGENCY APPROVALS

- UL 506, File E73539
- UL Recognized Class B
- UL 1446, File E80130
- CSA 22.2#66, File LR68051-2
- TUV, EN61558



VA	WT	L	W	H	A	B
2.5	0.25	1.625	1.312	1.125	.200	.250
5.0	0.37	1.625	1.312	1.375	.200	.400
10.0	0.53	1.875	1.562	1.375	.200	.400
20.0	0.90	2.250	1.875	1.625	.400	.400
30.0	1.15	2.625	2.187	1.562	.550	.275
56.0	1.70	3.000	2.500	1.812	.600	.300
VA	C	D	E	F	PIN DIM	MTG
2.5	1.000	—	—	1.062	.025 SQ	#4
5.0	1.000	—	—	1.062	.025 SQ	#4
10.0	1.140	—	—	1.250	.038 SQ	#4
20.0	1.460	—	—	1.500	.038 SQ	#4
30.0	1.680	2.18	1.75	—	.045 SQ	#6
56.0	1.900	2.50	2	—	.045 SQ	#6





# International High Power Transformers

These transformers are built on dual bobbins with insulating shrouds to provide 4000V RMS isolation between primary and secondary. Non-concentric construction reduces primary-to-secondary capacitance and eliminates the need for an electrostatic shield.

## FEATURES

- Chassis mounting
- Dual bobbin; double reinforced insulation
- High (4000V) isolation
- Non-concentric design -- eliminates ESS
- No crossover contact between primary and secondary leads
- Baked resin -- provides fully cured and environmentally resistant finish
- Secondaries can be series or parallel connected

## AGENCY APPROVALS

- UL 506, File E73539
- UL Recognized Class B
- UL 1446, File E80130
- CSA 22.2#66, File LR68051-2
- TUV, EN61558

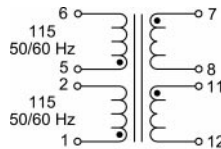


Figure A

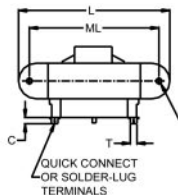
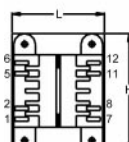
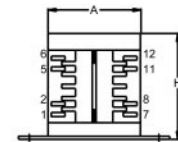
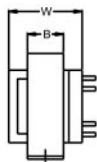
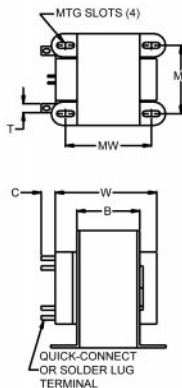


Figure B



VA	WT.	L	W	H	A	B
25	1.25	2.812	1.875	2.312	2.000	1.125
43	1.6	3.125	2.062	2.687	2.250	1.125
80	2.8	2.500	2.375	3.000	—	1.375
130	4.1	2.812	2.875	3.375	—	1.625
175	5.5	3.125	2.875	3.750	—	1.625
VA	C	T	ML	MW	MTG.	FIG
25	.312	.187	2.375	—	#6	A
43	.312	.187	2.812	—	#6	A
80	.312	.187	2.000	2.18	#6	B
130	.375	0.25	2.250	2.50	#8	B
175	.375	0.25	2.500	2.50	#8	B



Part No. Chassis Mount	(Size) VA	Secondary RMS Rating	
		Series	Parallel
A41-25-10A1	25	10V C.T. @ 2.5A	5V @ 5.0A
A41-43-10A2	43	10V C.T. @ 4.3A	5V @ 8.6A
A41-80-10A3	80	10V C.T. @ 8.0A	5V @ 16.0A
A41-130-10A4	130	10V C.T. @ 13.0A	5V @ 26.0A
A41-175-10A5	175	10V C.T. @ 17.5A	5V @ 35.0A
A41-25-12A7	25	12.6V C.T. @ 2.0A	6.3V @ 4.0A
A41-43-12A8	43	12.6V C.T. @ 3.4A	6.3V @ 6.8A
A41-80-12A9	80	12.6V C.T. @ 6.3A	6.3V @ 12.6A
A41-130-12A10	130	12.6V C.T. @ 10.3A	6.3V @ 20.6A
A41-175-12A11	175	12.6V C.T. @ 14.0A	6.3V @ 28.0A
A41-25-16A13	25	16V C.T. @ 1.6A	8V @ 3.2A
A41-43-16A14	43	16V C.T. @ 2.7A	8V @ 5.4A
A41-80-16A15	80	16V C.T. @ 5.0A	8V @ 10.0A
A41-130-16A16	130	16V C.T. @ 8.1A	8V @ 16.2A
A41-175-16A17	175	16V C.T. @ 11.0A	8V @ 22.0A
A41-25-20A19	25	20V C.T. @ 1.25A	10V @ 2.5A
A41-43-20A20	43	20V C.T. @ 2.2A	10V @ 4.4A
A41-80-20A21	80	20V C.T. @ 4.0A	10V @ 8.0A
A41-130-20A22	130	20V C.T. @ 6.5A	10V @ 13.0A
A41-175-20A23	175	20V C.T. @ 8.8A	10V @ 17.6A
A41-25-24A25	25	24V C.T. @ 1A	12V @ 2A
A41-43-24A26	43	24V C.T. @ 1.8A	12V @ 3.6A
A41-80-24A27	80	24V C.T. @ 3.3A	12V @ 6.6A
A41-130-24A28	130	24V C.T. @ 5.4A	12V @ 10.8A
A41-175-24A29	175	24V C.T. @ 7.3A	12V @ 14.6A
A41-25-28A31	25	28V C.T. @ 0.9A	14V @ 1.86A
A41-43-28A32	43	28V C.T. @ 1.5A	14V @ 3.0A
A41-80-28A33	80	28V C.T. @ 2.8A	14V @ 5.6A
A41-130-28A34	130	28V C.T. @ 4.6A	14V @ 9.2A
A41-175-28A35	175	28V C.T. @ 6.25A	14V @ 12.5A
A41-25-36A37	25	36V C.T. @ 0.7A	18V @ 1.4A
A41-43-36A38	43	36V C.T. @ 1.2A	18V @ 2.4A
A41-80-36A39	80	36V C.T. @ 2.2A	18V @ 4.4A
A41-130-36A40	130	36V C.T. @ 3.6A	18V @ 7.2A
A41-175-36A41	175	36V C.T. @ 4.8A	18V @ 9.6A
A41-25-230A42	25	230V C.T. @ 0.11A	115V @ 0.22A
A41-43-230A43	43	230V C.T. @ 0.19A	115V @ 0.38A
A41-80-230A44	80	230V C.T. @ 0.35A	115V @ 0.7A
A41-130-230A45	130	230V C.T. @ 0.57A	115V @ 1.14A
A41-175-230A46	175	230V C.T. @ 0.76A	115V @ 1.52A

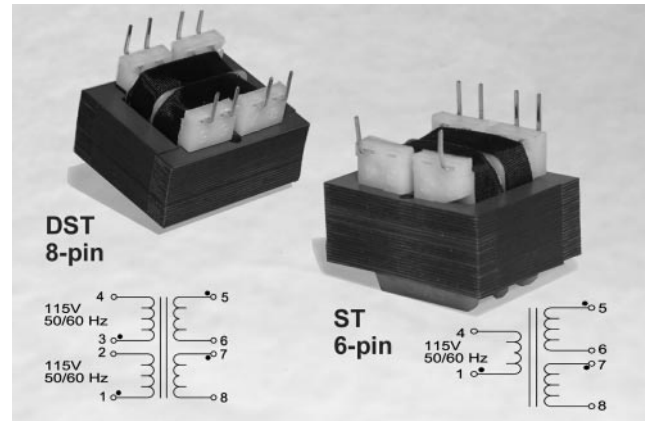
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# Split Bobbin Horizontal Profile Plug-in Transformers

for PC board power isolation

Part Number	Secondary RMS Rating	
	Series	Parallel
ST 2-10B41 <sup>1</sup>	10V C.T. @ 0.11A	5V @ 0.22A
ST 3-10B1 <sup>1</sup>	10V C.T. @ 0.25A	5V @ 0.5A
ST 4-10B2	10V C.T. @ 0.6A	5V @ 1.2A
ST 5-10B3	10V C.T. @ 1.2A	5V @ 2.4A
ST 6-10B4	10V C.T. @ 2A	5V @ 4A
ST 7-10B51	10V C.T. @ 3.6A	5V @ 7.2A
ST 2-12B42 <sup>1</sup>	12.6V C.T. @ 0.09A	6.3V @ 0.18A
ST 3-12B5 <sup>1</sup>	12.6V C.T. @ 0.2A	6.3V @ 0.4A
ST 4-12B6	12.6V C.T. @ 0.5A	6.3V @ 1.0A
ST 5-12B7	12.6V C.T. @ 1.0A	6.3V @ 2.0A
ST 6-12B8	12.6V C.T. @ 1.6A	6.3V @ 3.2A
ST 7-12B52	12.6V C.T. @ 2.85A	6.3V @ 5.7A
ST 2-16B43 <sup>1</sup>	16V C.T. @ 0.07A	8V @ 0.14A
ST 3-16B9 <sup>1</sup>	16V C.T. @ 0.15A	8V @ 0.3A
ST 4-16B10	16V C.T. @ 0.4A	8V @ 0.8A
ST 5-16B11	16V C.T. @ 0.8A	8V @ 1.6A
ST 6-16B12	16V C.T. @ 1.25A	8V @ 2.5A
ST 7-16B53	16V C.T. @ 2.25A	8V @ 4.5A
ST 2-20B44 <sup>1</sup>	20V C.T. @ 0.055A	10V @ 0.11A
ST 3-20B13 <sup>1</sup>	20V C.T. @ 0.12A	10V @ 0.24A
ST 4-20B14	20V C.T. @ 0.3A	10V @ 0.6A
ST 5-20B15	20V C.T. @ 0.6A	10V @ 1.2A
ST 6-20B16	20V C.T. @ 1A	10V @ 2A
ST 7-20B54	20V C.T. @ 1.8A	10V @ 3.6A
ST 2-24B45 <sup>1</sup>	24V C.T. @ 0.045A	12V @ 0.09A
ST 3-24B17 <sup>1</sup>	24V C.T. @ 0.1A	12V @ 0.2A
ST 4-24B18	24V C.T. @ 0.25A	12V @ 0.5A
ST 5-24B19	24V C.T. @ 0.5A	12V @ 1.0A
ST 6-24B20	24V C.T. @ 0.8A	12V @ 1.6A
ST 7-24B55	24V C.T. @ 1.5A	12V @ 3.0A
ST 2-28B46	28V C.T. @ 0.04A	14V @ 0.08A
ST 3-28B21	28V C.T. @ 0.085A	14V @ 0.17A
ST 4-28B22	28V C.T. @ 0.2A	14V @ 0.4A
ST 5-28B23	28V C.T. @ 0.42A	14V @ 0.84A
ST 6-28B24	28V C.T. @ 0.7A	14V @ 1.4A
ST 7-28B56	28V C.T. @ 1.3A	14V @ 2.6A
ST 2-36B47	36V C.T. @ 0.03A	18V @ 0.06A
ST 3-36B25	36V C.T. @ 0.065A	18V @ 0.13A
ST 4-36B26	36V C.T. @ 0.17A	18V @ 0.34A
ST 5-36B27	36V C.T. @ 0.35A	18V @ 0.7A
ST 6-36B28	36V C.T. @ 0.55A	18V @ 1.1A
ST 7-36B57	36V C.T. @ 1.0A	18V @ 2.0A
ST 2-48B48	48V C.T. @ 0.023A	24V @ 0.046A
ST 3-48B29	48V C.T. @ 0.05A	24V @ 0.1A
ST 4-48B30	48V C.T. @ 0.125A	24V @ 0.25A
ST 5-48B31	48V C.T. @ 0.25A	24V @ 0.5A
ST 6-48B32	48V C.T. @ 0.4A	24V @ 0.8A
ST 7-48B58	48V C.T. @ 0.75A	24V @ 1.5A
ST 2-56B49	56V C.T. @ 0.02A	28V @ 0.04A
ST 3-56B33	56V C.T. @ 0.045A	28V @ 0.09A
ST 4-56B34	56V C.T. @ 0.11A	28V @ 0.22A
ST 5-56B35	56V C.T. @ 0.22A	28V @ 0.44A
ST 6-56B36	56V C.T. @ 0.35A	28V @ 0.7A
ST 7-56B59	56V C.T. @ 0.65A	28V @ 1.3A
ST 2-120B50	120V C.T. @ 0.01A	60V @ 0.02A
ST 3-120B37	120V C.T. @ 0.02A	60V @ 0.04A
ST 4-120B38	120V C.T. @ 0.05A	60V @ 0.1A
ST 5-120B39	120V C.T. @ 0.1A	60V @ 0.2A
ST 6-120B40	120V C.T. @ 0.16A	60V @ 0.32A
ST 7-120B60	120V C.T. @ 0.3A	60V @ 0.6A
<b>Primary Ratings:</b> "ST" 115V 50/60 Hz 6-pin "_DST" 115/230V 50/60 Hz 8-pin (Other primary ratings available on request.)		



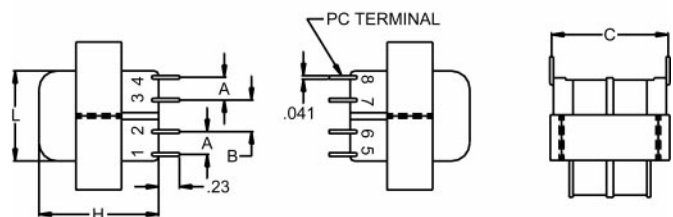
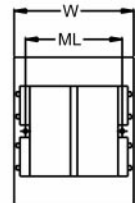
Split-bobbin: primaries and secondaries are wound side-by-side rather than concentrically to obtain the benefits listed below.

## FEATURES

- High (2500V) isolation; 2500V RMS HIPOT
- Non-concentric design -- eliminates ESS
- No crossover contact between primary and secondary leads
- Vacuum impregnated -- withstands modern board washing systems and reduces audible noise
- Baked resin -- provides fully cured and environmentally resistant finish
- Rugged construction -- no additional mounting hardware
- Universal design -- compatible with industry-standard footprints
- Available in single or dual primary
- Secondaries can be connected in series or parallel

## AGENCY APPROVALS

- UL, 506, File E73539
- UL 1446, File E80130
- UL 1585 File E169010<sup>1</sup>
- CSA 22.2#66, File LR68051-2
- UL Recognized Class B



NOTE: PINS 2 AND 3 ARE OMITTED ON SINGLE PRIMARY VERSIONS

Size	VA	L	W	H	ML	A	B	C	weight
2	1.1	1.13	1.13	0.94	----	.250	.250	1.200	0.17 lb
3	2.4	1.38	1.13	1.19	----	.250	.250	1.200	0.25 lb
4	6	1.63	1.31	1.31	1.06	.250	.350	1.280	0.44 lb
5	12	1.86	1.56	1.44	1.25	.300	.400	1.410	0.70 lb
6	20	2.25	1.86	1.44	1.50	.300	.400	1.600	0.80 lb
7 <sup>2</sup>	36	2.63	2.19	1.56	Note 2	.400	.400	1.800	1.10 lb

## NOTES

<sup>1</sup>UL 1585, Class 2, Component Recognition.

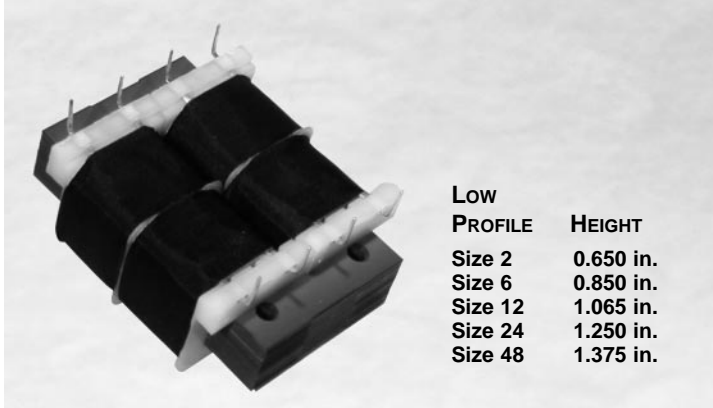
<sup>2</sup>Size 7 has 4 mtg. holes on 2 3/16 x 1 3/4 centers.

Pulse Specialty Components reserves the right to make changes without notice.



# Low Profile Plug-in Transformers

*for limited-space PC board applications*



LOW PROFILE	HEIGHT
Size 2	0.650 in.
Size 6	0.850 in.
Size 12	1.065 in.
Size 24	1.250 in.
Size 48	1.375 in.

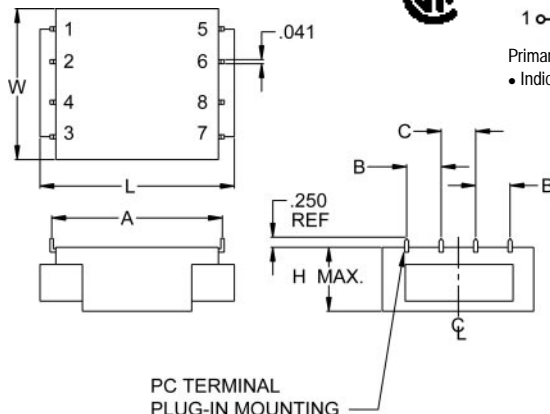
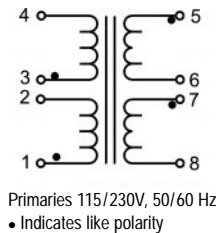
These low-profile plug-in power transformers are wound in a semi-toroidal configuration to minimize both EMI and unit height. They are designed for low-height critical pc board applications in semiconductor control and instrumentation and for use in single, dual, or reference dc supplies and isolated control circuits. Available in five sizes.

## FEATURES

- Low height profile
- 1500V RMS HIPOT
- Vacuum impregnated -- withstands modern board washing systems and reduces audible noise for quiet operation
- Baked resin -- provides fully cured and environmentally resistant finish that will not peel or flake
- Sizes 2, 6, and 12 are available as encapsulated and hermetically sealed (request drawings).

## AGENCY APPROVALS

- UL, 506, File E73539
- UL 1446, File E80130
- CSA 22.2#66, File LR68051-2



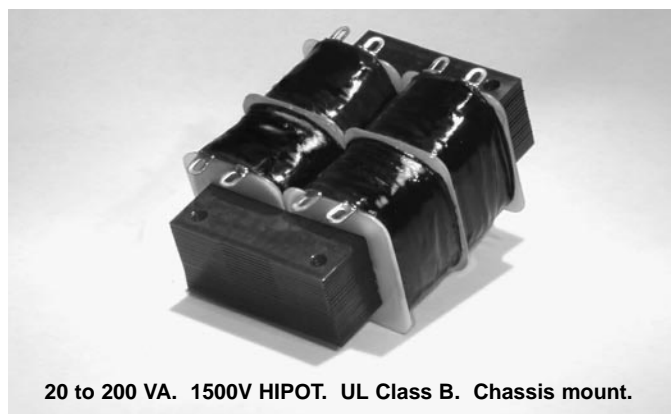
Part Number	Size	Secondary RMS Rating	
		Series	Parallel
LP 10-250B23	2	10V C.T. @ 250mA	5V @ 500mA
LP 10-600B1	6	10V C.T. @ 600mA	5V @ 1.20A
LP 10-1200B2	12	10V C.T. @ 1.20A	5V @ 2.40A
LP 10-2400B89	24	10V C.T. @ 2.40A	5V @ 4.80A
LP 10-4800B90	48	10V C.T. @ 4.80A	5V @ 9.60A
LP 12-200B24	2	12.6V C.T. @ 200mA	6.3V @ 400mA
LP 12-450B3	6	12.6V C.T. @ 450mA	6.3V @ 900mA
LP 12-900B4	12	12.6V C.T. @ 900mA	6.3V @ 1.80A
LP 12-1900B91	24	12.6V C.T. @ 1.90A	6.3V @ 3.80A
LP 12-3800B92	48	12.6V C.T. @ 3.80A	6.3V @ 7.60A
LP 16-150B25	2	16V C.T. @ 150mA	8V @ 300mA
LP 16-350B5	6	16V C.T. @ 350mA	8V @ 700mA
LP 16-700B6	12	16V C.T. @ 700mA	8V @ 1.40A
LP 16-1500B93	24	16V C.T. @ 1.50A	8V @ 3.00A
LP 16-3000B94	48	16V C.T. @ 3.00A	8V @ 6.00A
LP 18-135B105	2	18V C.T. @ 135mA	9V @ 270mA
LP 18-325B106	6	18V C.T. @ 325mA	9V @ 650mA
LP 18-650B107	12	18V C.T. @ 650mA	9V @ 1.30A
LP 18-1300B108	24	18V C.T. @ 1.30A	9V @ 2.60A
LP 18-2600B109	48	18V C.T. @ 2.60A	9V @ 5.20A
LP 20-125B26	2	20V C.T. @ 125mA	10V @ 250mA
LP 20-300B7	6	20V C.T. @ 300mA	10V @ 600mA
LP 20-600B8	12	20V C.T. @ 600mA	10V @ 1.20A
LP 20-1200B95	24	20V C.T. @ 1.20A	10V @ 2.40A
LP 20-2400B96	48	20V C.T. @ 2.40A	10V @ 4.80A
LP 24-100B27	2	24V C.T. @ 100mA	12V @ 200mA
LP 24-250B9	6	24V C.T. @ 250mA	12V @ 500mA
LP 24-500B10	12	24V C.T. @ 500mA	12V @ 1.00A
LP 24-1000B97	24	24V C.T. @ 1.00A	12V @ 2.00A
LP 24-2000B98	48	24V C.T. @ 2.00A	12V @ 4.00A
LP 28-90B115	2	28V C.T. @ 90mA	14V @ 180mA
LP 28-215B116	6	28V C.T. @ 215mA	14V @ 430mA
LP 28-430B117	12	28V C.T. @ 430mA	14V @ 860mA
LP 28-850B118	24	28V C.T. @ 850mA	14V @ 1.70A
LP 28-1700B119	48	28V C.T. @ 1.70A	14V @ 3.40A
LP 30-85B125	2	30V C.T. @ 85mA	15V @ 170mA
LP 30-200B126	6	30V C.T. @ 200mA	15V @ 400mA
LP 30-400B127	12	30V C.T. @ 400mA	15V @ 800mA
LP 30-800B128	24	30V C.T. @ 800mA	15V @ 1.60A
LP 30-1600B129	48	30V C.T. @ 1.60A	15V @ 3.20A
LP 34-75B28	2	34V C.T. @ 75mA	17V @ 150mA
LP 34-170B11	6	34V C.T. @ 170mA	17V @ 340mA
LP 34-340B12	12	34V C.T. @ 340mA	17V @ 680mA
LP 34-700B99	24	34V C.T. @ 700mA	17V @ 1.40A
LP 34-1400B100	48	34V C.T. @ 1.40A	17V @ 2.80A
LP 40-60B29	2	40V C.T. @ 60mA	20V @ 120mA
LP 40-150B13	6	40V C.T. @ 150mA	20V @ 300mA
LP 40-300B14	12	40V C.T. @ 300mA	20V @ 600mA
LP 40-600B101	24	40V C.T. @ 600mA	20V @ 1.20A
LP 40-1200B102	48	40V C.T. @ 1.20A	20V @ 2.40A
LP 56-45B30	2	56V C.T. @ 45mA	28V @ 90mA
LP 56-100B15	6	56V C.T. @ 100mA	28V @ 200mA
LP 56-200B16	12	56V C.T. @ 200mA	28V @ 400mA
LP 56-425B103	24	56V C.T. @ 425mA	28V @ 850mA
LP 56-850B104	48	56V C.T. @ 850mA	28V @ 1.70A
LP 88-28B31	2	88V C.T. @ 28mA	44V @ 56mA
LP 88-65B17	6	88V C.T. @ 65mA	44V @ 130mA
LP 88-130B18	12	88V C.T. @ 130mA	44V @ 260mA
LP 120-20B32	2	120V C.T. @ 20mA	60V @ 40mA
LP 120-50B19	6	120V C.T. @ 50mA	60V @ 100mA
LP 120-100B20	12	120V C.T. @ 100mA	60V @ 200mA
LP 230-10B33	2	230V C.T. @ 10mA	115V @ 20mA
LP 230-25B21	6	230V C.T. @ 25mA	115V @ 50mA
LP 230-50B22	12	230V C.T. @ 50mA	115V @ 100mA

Size	L	W	H	A	B	C	Oz.	Reg. (%) (Typ.)	T Rise (°C) (Typ.)
2	1.875	1.562	0.650	1.600	0.375	0.375	5	20	25
6	1.875	1.562	0.850	1.600	0.375	0.375	7	18	30
12	2.500	2.000	1.065	2.000	0.500	0.375	11	15	30
24	2.875	2.250	1.250	1.900	0.600	0.530	15	15	48
48	3.125	2.500	1.375	2.180	0.600	0.660	21	12	65

Pulse Specialty Components reserves the right to make changes without notice.

# High-Power Low-Profile Humbucking Transformers

PART NO.	Size	Secondary RMS Rating	
		Series	Parallel
LP 10-2B34	I	10V C.T. @ 2.00A	5V @ 4.00A
LP 10-5B35	II	10V C.T. @ 5.00A	5V @ 10.0A
LP 10-7.5B36	III	10V C.T. @ 7.50A	5V @ 15.0A
LP 10-13.5B37	IV	10V C.T. @ 13.5A	5V @ 27.0A
LP 10-20B38	V	10V C.T. @ 20.0A	5V @ 40.0A
LP 12-1.6B39	I	12.6V C.T. @ 1.60A	6.3V @ 3.20A
LP 12-4B40	II	12.6V C.T. @ 4.00A	6.3V @ 8.00A
LP 12-6B41	III	12.6V C.T. @ 6.00A	6.3V @ 12.0A
LP 12-11B42	IV	12.6V C.T. @ 11.0A	6.3V @ 22.0A
LP 12-16B43	V	12.6V C.T. @ 16.0A	6.3V @ 32.0A
LP 16-1.25B44	I	16V C.T. @ 1.25A	8V @ 2.50A
LP 16-3.15B45	II	16V C.T. @ 3.15A	8V @ 6.30A
LP 16-4.75B46	III	16V C.T. @ 4.75A	8V @ 9.50A
LP 16-8.5B47	IV	16V C.T. @ 8.50A	8V @ 17.0A
LP 16-12.5B48	V	16V C.T. @ 12.5A	8V @ 25.0A
LP 18-1.1B110	I	18V C.T. @ 1.10A	9V @ 2.20A
LP 18-2.75B111	II	18V C.T. @ 2.75A	9V @ 5.50A
LP 18-4.2B112	III	18V C.T. @ 4.20A	9V @ 8.40A
LP 18-7.5B113	IV	18V C.T. @ 7.50A	9V @ 15.0A
LP 18-11B114	V	18V C.T. @ 11.0A	9V @ 22.0A
LP 20-1B49	I	20V C.T. @ 1.00A	10V @ 2.00A
LP 20-2.5B50	II	20V C.T. @ 2.50A	10V @ 5.00A
LP 20-3.75B51	III	20V C.T. @ 3.75A	10V @ 7.50A
LP 20-6.75B52	IV	20V C.T. @ 6.75A	10V @ 13.5A
LP 20-10B53	V	20V C.T. @ 10.0A	10V @ 20.0A
LP 24-0.85B54	I	24V C.T. @ 0.85A	12V @ 1.70A
LP 24-2.1B55	II	24V C.T. @ 2.10A	12V @ 4.20A
LP 24-3.15B56	III	24V C.T. @ 3.15A	12V @ 6.30A
LP 24-5.75B57	IV	24V C.T. @ 5.75A	12V @ 11.5A
LP 24-8.5B58	V	24V C.T. @ 8.50A	12V @ 17.0A
LP 28-0.7B120	I	28V C.T. @ 0.70A	14V @ 1.40A
LP 28-1.75B121	II	28V C.T. @ 1.75A	14V @ 3.50A
LP 28-2.7B122	III	28V C.T. @ 2.70A	14V @ 5.40A
LP 28-4.8B123	IV	28V C.T. @ 4.80A	14V @ 9.60A
LP 28-7B124	V	28V C.T. @ 7.00A	14V @ 14.0A
LP 30-0.65B130	I	30V C.T. @ 0.65A	15V @ 1.30A
LP 30-1.65B131	II	30V C.T. @ 1.65A	15V @ 3.30A
LP 30-2.5B132	III	30V C.T. @ 2.50A	15V @ 5.00A
LP 30-4.5B133	IV	30V C.T. @ 4.50A	15V @ 9.00A
LP 30-6.65B134	V	30V C.T. @ 6.65A	15V @ 13.3A
LP 34-0.6B59	I	34V C.T. @ 0.60A	17V @ 1.20A
LP 34-1.5B60	II	34V C.T. @ 1.50A	17V @ 3.00A
LP 34-2.25B61	III	34V C.T. @ 2.25A	17V @ 4.50A
LP 34-4B62	IV	34V C.T. @ 4.00A	17V @ 8.00A
LP 34-6B63	V	34V C.T. @ 6.00A	17V @ 12.0A
LP 40-0.5B64	I	40V C.T. @ 0.50A	20V @ 1.00A
LP 40-1.25B65	II	40V C.T. @ 1.25A	20V @ 2.50A
LP 40-1.9B66	III	40V C.T. @ 1.90A	20V @ 3.80A
LP 40-3.4B67	IV	40V C.T. @ 3.40A	20V @ 6.80A
LP 40-5B68	V	40V C.T. @ 5.00A	20V @ 10.0A
LP 56-0.35B69	I	56V C.T. @ 0.35A	28V @ 0.70A
LP 56-0.9B70	II	56V C.T. @ 0.90A	28V @ 1.80A
LP 56-1.35B71	III	56V C.T. @ 1.35A	28V @ 2.70A
LP 56-2.4B72	IV	56V C.T. @ 2.40A	28V @ 4.80A
LP 56-3.5B73	V	56V C.T. @ 3.50A	28V @ 7.00A
LP 120-0.17B79	I	120V C.T. @ 170mA	60V @ 340mA
LP 120-0.425B80	II	120V C.T. @ 425mA	60V @ 850mA
LP 120-0.625B81	III	120V C.T. @ 625mA	60V @ 1.25A
LP 120-1.1B82	IV	120V C.T. @ 1.10A	60V @ 2.20A
LP 120-1.7B83	V	120V C.T. @ 1.70A	60V @ 3.40A
LP 230-0.09B84	I	230V C.T. @ 90mA	115V @ 180mA
LP 230-0.22B85	II	230V C.T. @ 220mA	115V @ 440mA
LP 230-0.325B86	III	230V C.T. @ 325mA	115V @ 650mA
LP 230-0.6B87	IV	230V C.T. @ 600mA	115V @ 1.20A
LP 230-0.9B88	V	230V C.T. @ 900mA	115V @ 1.80A



20 to 200 VA. 1500V HIPOT. UL Class B. Chassis mount.

## FEATURES

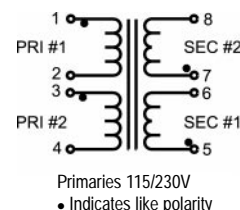
- UI design -- increases power/height ratio
- Side-by-side design -- lowers interwinding capacitance
- Semi toroidal construction -- reduces magnetic fields and EMI
- Greater surface area -- more uniform heat dissipation
- Solder lug terminals -- for rugged field applications
- UL recognized, 506, File E73539, Class B (130°)
- Available in five sizes
- 1500V HIPOT
- Baked resin -- provides fully cured and environmentally resistant finish that will not peel or flake



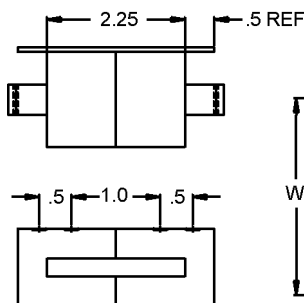
**NON-STANDARD RATINGS** -- Tapped primaries, secondaries of different voltages, currents or frequencies can be furnished.

## MOUNTING CONFIGURATION --

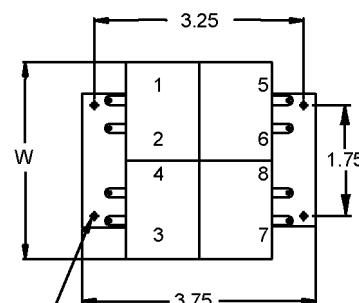
Through holes provided in core assembly.



SOLDER TERMINALS  
(.5-1-.5) APPROX. SPACING



MOUNTING HOLES  
.20 DIA 4 PLACES TYP.



Pulse Specialty Components reserves the right to make changes without notice.

Size	H (Max)	W (Max)	Wt. (lbs) (Approx)	VA (Nom)	Reg. (%) (Typ)	T. Rise (°C) (Typ)
I	.850	3.00	1.00	20	30	25
II	1.25	3.00	1.75	50	30	45
III	1.50	3.00	2.25	75	25	55
IV	1.85	3.00	3.00	135	20	65
V	2.35	3.00	4.25	200	15	90



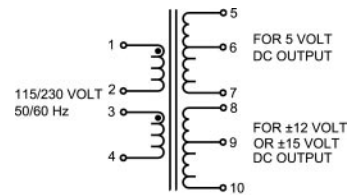
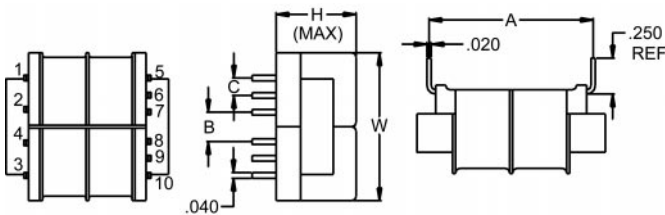
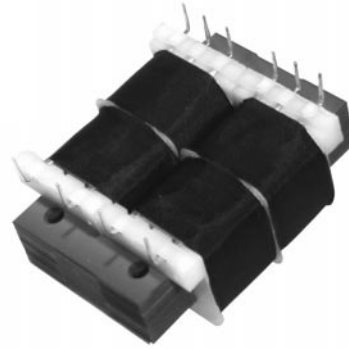


# Triple-output Low Profile Humbucking Transformers

Designed around our Series LP transformers, MPL transformers are rated in terms of final DC output after regulation by a 3-terminal IC regulator. 1500V HIPOT is standard.

These transformers are designed for pc board power isolation and for applications that require triple-output regulated supplies for microprocessor applications.

- Primary 115/230 Volt, 50/60 Hz
- 5V and 12V or 15V outputs



Size	VA	L	W	H	A	B	C	weight (lb)
6	1.1	1.86	1.56	.850	1.600	0.375	0.187	0.43
12	2.4	2.50	2.000	1.065	2.000	0.500	0.250	0.68

Part Number Primary 50/60 Hz 115/230V	DC Output		Size
	Output 1	Output 2	
MPL-6-12B51	5V @ 135 mA	12V @ 40 mA	6
MPL-6-15B52	5V @ 135 mA	15V @ 35 mA	6
MPL-12-12B61	5V @ 270 mA	12V @ 85 mA	12
MPL-12-15B62	5V @ 270 mA	15V @ 70 mA	12



# Concentric and Split Bobbin Vertical Profile Plug-in Transformers

## for PC board power isolation

- **PC SERIES CONCENTRIC VERTICAL MOUNT** models provide operation frequencies from 47 to 500 Hz. Isolation between primary and secondary 1500V.
- **EL SERIES SPLIT BOBBIN VERTICAL MOUNT** models are available with a 50/60 Hz primary. Isolation between primary and secondary 2500V. Non-concentric design eliminates ESS.
- **PC AND EL SERIES** have the same dimensions and schematics, are available in the same sizes and mounting styles, and share the same general features listed below.

## FEATURES

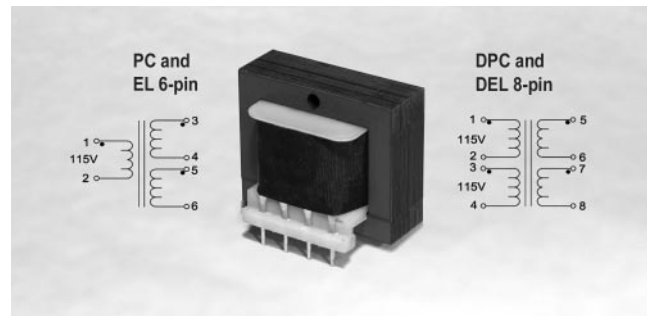
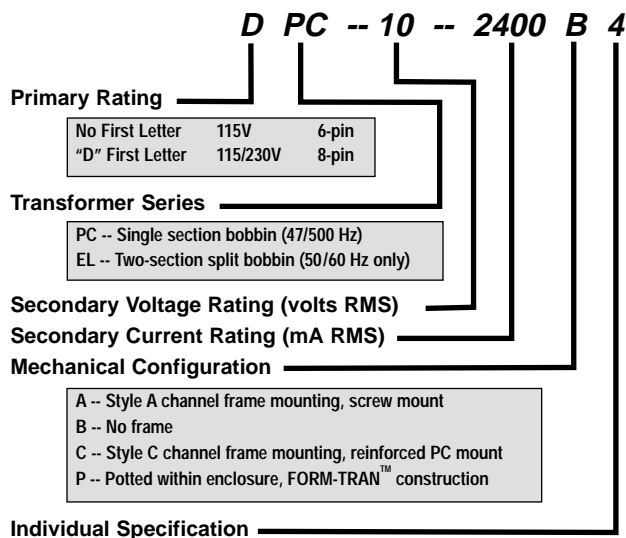
- Vacuum impregnated -- withstands modern board washing systems and reduces audible noise for quiet operation
- Baked resin -- provides fully cured and environmentally resistant finish that will not peel or flake
- Rugged construction
- Universal design compatible with industry-standard footprints
- Available in single or dual primary
- Secondaries may be connected in series or parallel
- Formtran enclosed potted unit available. See model code.

## AGENCY APPROVALS

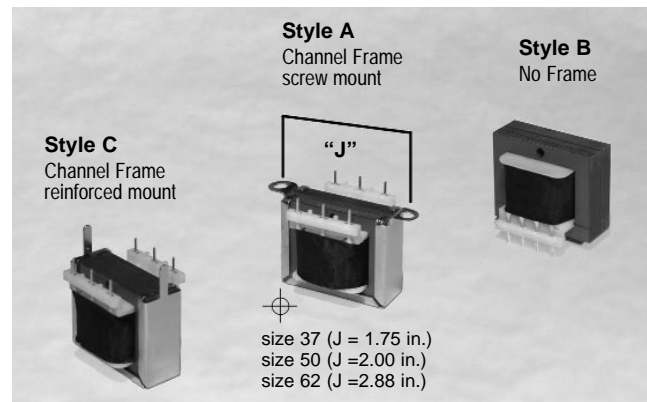
- UL, 506, File E73539
- UL 1446, File E80130
- CSA 22.2#66, File LR68051-2
- UL Recognized Class B



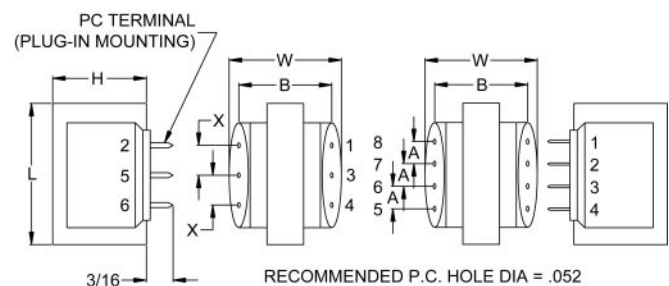
## MODEL NUMBER CODE



PC Series (concentric) is shown; primary 47/500 Hz; EL Series (split bobbin) available; primary 50/60 Hz.



## DIMENSIONS -- Style B (no frame) is shown. Contact sales for other dimensions.



SIZE	VA	WT (oz)	6-pin X	8-pin A	B	L	W	H
25	1.0	2.5	0.250	0.200	1.200	1	1.375	0.83
37	1.2	3	0.312	0.200	1.000	1.375	1.125	1.188
50	4.4	5	0.400	0.250	1.100	1.625	1.250	1.375
62	10	9	0.400	0.250	1.300	1.875	1.438	1.625
24	24	12	0.400	0.250	2.100	1.625	2.250	1.375

## NOTES

Pulse Specialty Components reserves the right to make changes without notice.



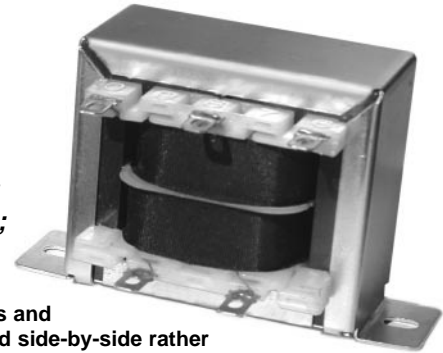


# CHASSIS-TRAN Power Transformers

Part Number		Secondary RMS Rating
Single 115V	Dual 115/230V	
241-3-10A1	not available	10V C.T. @ 0.25A
241-4-10A11	DP 241-4-10A11	10V C.T. @ 0.6A
241-5-10A21	DP 241-5-10A21	10V C.T. @ 1.2A
241-6-10A31	DP 241-6-10A31	10V C.T. @ 3.0A
241-7-10A41	DP 241-7-10A41	10V C.T. @ 5.0A
241-8-10A51	DP 241-8-10A51	10V C.T. @ 10A
241-3-12A2	not available	12.6V C.T. @ 0.2A
241-4-12A12	DP 241-4-12A12	12.6V C.T. @ 0.5A
241-5-12A22	DP 241-5-12A22	12.6V C.T. @ 1.0A
241-6-12A32	DP 241-6-12A32	12.6V C.T. @ 2.5A
241-7-12A42	DP 241-7-12A42	12.6V C.T. @ 4.0A
241-8-12A52	DP 241-8-12A52	12.6V C.T. @ 8.0A
241-3-16A3	not available	16V C.T. @ 0.15A
241-4-16A13	DP 241-4-16A13	16V C.T. @ 0.4A
241-5-16A23	DP 241-5-16A23	16V C.T. @ 0.8A
241-6-16A33	DP 241-6-16A33	16V C.T. @ 2.0A
241-7-16A43	DP 241-7-16A43	16V C.T. @ 3.5A
241-8-16A53	DP 241-8-16A53	16V C.T. @ 6.25A
241-3-20A4	not available	20V C.T. @ 0.12A
241-4-20A14	DP 241-4-20A14	20V C.T. @ 0.3A
241-5-20A24	DP 241-5-20A24	20V C.T. @ 0.6A
241-6-20A34	DP 241-6-20A34	20V C.T. @ 1.5A
241-7-20A44	DP 241-7-20A44	20V C.T. @ 2.8A
241-8-20A54	DP 241-8-20A54	20V C.T. @ 5.0A
241-3-24A5	not available	24V C.T. @ 0.1A
241-4-24A15	DP 241-4-24A15	24V C.T. @ 0.25A
241-5-24A25	DP 241-5-24A25	24V C.T. @ 0.5A
241-6-24A35	DP 241-6-24A35	24V C.T. @ 1.25A
241-7-24A45	DP 241-7-24A45	24V C.T. @ 2.4A
241-8-24A55	DP 241-8-24A55	24V C.T. @ 4.0A
241-3-28A6	not available	28V C.T. @ 0.085A
241-4-28A16	DP 241-4-28A16	28V C.T. @ 0.2A
241-5-28A26	DP 241-5-28A26	28V C.T. @ 0.42A
241-6-28A36	DP 241-6-28A36	28V C.T. @ 1.1A
241-7-28A46	DP 241-7-28A46	28V C.T. @ 2.0A
241-8-28A56	DP 241-8-28A56	28V C.T. @ 3.6A
241-3-36A7	not available	36V C.T. @ 0.065A
241-4-36A17	DP 241-4-36A17	36V C.T. @ 0.17A
241-5-36A27	DP 241-5-36A27	36V C.T. @ 0.35A
241-6-36A37	DP 241-6-36A37	36V C.T. @ 0.85A
241-7-36A47	DP 241-7-36A47	36V C.T. @ 1.5A
241-8-36A57	DP 241-8-36A57	36V C.T. @ 2.8A
241-3-48A8	not available	48V C.T. @ 0.05A
241-4-48A18	DP 241-4-48A18	48V C.T. @ 0.125A
241-5-48A28	DP 241-5-48A28	48V C.T. @ 0.25A
241-6-48A38	DP 241-6-48A38	48V C.T. @ 0.63A
241-7-48A48	DP 241-7-48A48	48V C.T. @ 1.2A
241-8-48A58	DP 241-8-48A58	48V C.T. @ 2.0A
241-3-56A9	not available	56V C.T. @ 0.045A
241-4-56A19	DP 241-4-56A19	56V C.T. @ 0.11A
241-5-56A29	DP 241-5-56A29	56V C.T. @ 0.22A
241-6-56A39	DP 241-6-56A39	56V C.T. @ 0.54A
241-7-56A49	DP 241-7-56A49	56V C.T. @ 1.0A
241-8-56A59	DP 241-8-56A59	56V C.T. @ 1.8A
241-3-120A10	not available	120V C.T. @ 0.02A
241-4-120A20	DP 241-4-120A20	120V C.T. @ 0.05A
241-5-120A30	DP 241-5-120A30	120V C.T. @ 0.1A
241-6-120A40	DP 241-6-120A40	120V C.T. @ 0.25A
241-7-120A50	DP 241-7-120A50	120V C.T. @ 0.5A
241-8-120A60	DP 241-8-120A60	120V C.T. @ 0.85A

Pulse Specialty Components reserves the right to make changes without notice.

*quick connect  
or hard wiring;  
high isolation*



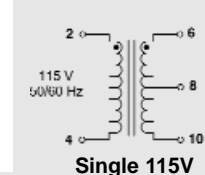
Split-bobbin: primaries and secondaries are wound side-by-side rather than concentrically to obtain the benefits listed below.

## FEATURES

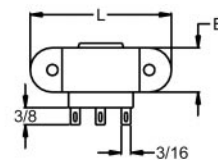
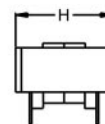
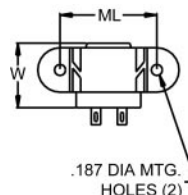
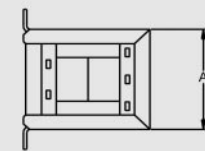
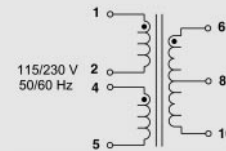
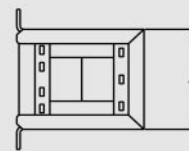
- Channel frame mounting
- Split bobbin. High (2500V) isolation. 2500V RMS Hipot
- Non-concentric design -- eliminates ESS
- No crossover between primary and secondary winding leads
- Vacuum impregnated -- withstands modern board washing systems and reduces audible noise
- Baked resin -- provides fully cured and environmentally resistant finish
- Available in single or dual primary
- Center tapped secondary offers dual outputs
- Terminals suitable for either hard wiring or quick connect

## AGENCY APPROVALS

- UL, 506, File E73539
- UL 1446, File E80130
- CSA 22.2#66, File LR68051-2
- UL Recognized Class B



Dots on schematics indicate like polarity.



Size	VA	L	W	H	A	B	ML	lbs.
3	2.4	2.06	1.06	1.19	1.62	0.56	1.75	0.25
4	6	2.38	1.25	1.38	1.69	0.69	2.0	0.44
5	12	2.81	1.38	1.63	1.94	0.81	2.38	0.7
6	30	3.25	1.69	1.94	2.31	1.06	2.81	1.1
7	56	3.69	1.81	2.25	2.69	1.06	3.13	1.7
8	100	4.03	2.25	2.56	3.06	1.31	3.56	2.75





# Triple-output CHASSIS TRAN Power Transformers

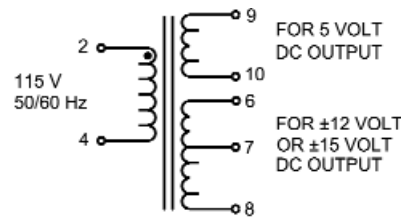
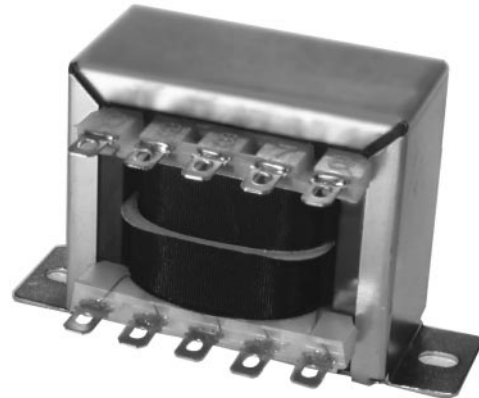
Designed around our CHASSIS TRAN Series transformers, MT and DMT transformers are rated in terms of final DC output after regulation by a 3-terminal IC regulator. 2500V HIPOT is standard.

These transformers are designed for power isolation applications requiring triple output regulated supplies used in micro-processor applications.

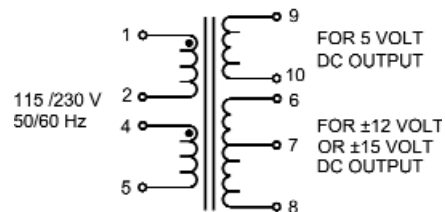
- Primary 115V or 115/230V, 50/60 Hz
- 5V and 12V or 15V outputs

## FEATURES

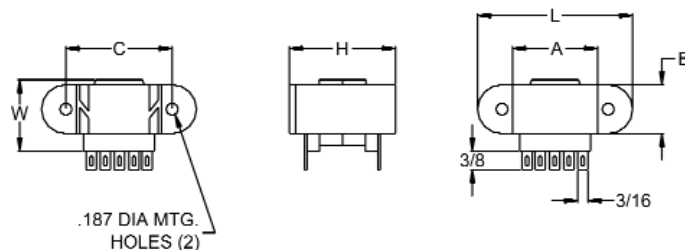
- Channel frame mounting
- Split bobbin; high (2500V) isolation; 2500V RMS HIPOT
- Non-concentric design -- eliminates ESS
- No crossover of primary and secondary leads
- Baked resin -- provides fully cured and environmentally resistant finish
- Available in single or dual primary
- Terminals suitable for either hard wiring or quick connect



MT Series



DMT Series



Size	L	W	H	A	B	C	weight (lb)
6	3.25	1.69	1.94	2.31	1.06	2.81	1.1
7	3.69	1.81	2.25	2.69	1.06	3.13	1.7
8	4.03	2.25	2.56	3.06	1.31	3.56	2.75

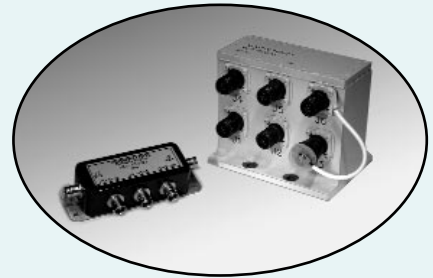
Part Number Primary 50/60 Hz		DC Output		Size
115V	115/230V	Output 1	Output 2	
MT-6-12A01	DMT-6-12A01	5V @ 1.75A	12V @ 210 mA	6
MT-6-15A02	DMT-6-15A02	5V @ 1.75A	15V @ 175 mA	6
MT-7-12A03	DMT-7-12A03	5V @ 2.8A	12V @ 350 mA	7
MT-7-15A04	DMT-7-15A04	5V @ 2.8A	15V @ 280 mA	7
MT-8-12A05	DMT-8-12A05	5V @ 4A	12V @ 600 mA	8
MT-8-15A06	DMT-8-15A06	5V @ 4A	15V @ 500 mA	8



## ***Other products: Pulse Specialty magnetic components for signal applications.***

### ***MIL-STD-1553 data bus couplers***

Pulse Specialty Components single and multi-stub MIL-STD-1553 data bus couplers range from lightweight and compact models for aircraft to heavy duty models used in the M1A2 tanks. Ruggedly constructed full-military models include our fully tested MIL-PRF-21037/27 coupling transformers inside. Economical couplers for bench-test and other COTs applications also available. Custom designs encompass a wide selection of connectors and box configurations. Standard (to specification) and custom testing is available over a wide range of temperature, vibration, EMI, and other conditions.

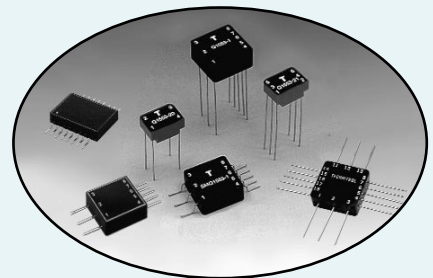


### ***MIL-PRF-21038/27 pulse transformers***

As "Technitrol Components Division," we were the first to achieve QPL status for MIL-STD-1553B interface transformers. Our comprehensive QPL transformer product line recently increased substantially in size to accommodate the new three-tier product levels called for by MIL-PRF-21038/27.

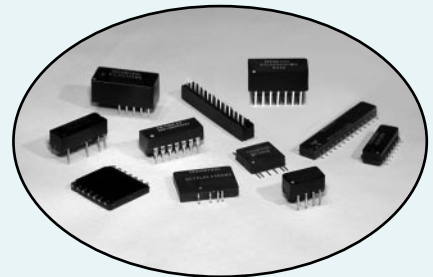
We also were the first to achieve QPL status on surface-mount MIL-STD-1553 pulse transformers. To this day, many manufacturers experience difficulties producing components that can survive the high-heat rigors of surface mounting and still provide the performance, reliability, part-to-part repeatability, and lifespan required by high-rel military and commercial applications.

Custom models include low-profile single and dual, vertically-stacked dual, and hermetically sealed transformers. Special test regimens and custom marking.



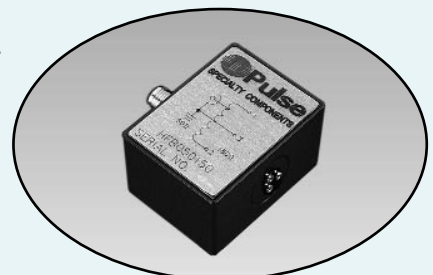
### ***Delay lines***

One of the most extensive selections of active and passive delay lines for military, industrial and commercial applications. We are an approved QPL listed supplier for MIL-PRF-83531 and MIL-PRF-83532. Our active delay lines can be manufactured with integrated circuits from several logic families screened to MIL-STD-883. Many delay lines are available in various package styles including single in line (SIP), dual in line (DIP) and a wide variety of surface mount configurations.



### ***High Frequency Balun Adapter for 150-ohm Fibre Channel, 100-ohm Gigabit Ethernet, and 78-ohm high-speed 1553.***

These wide-band baluns provide the impedance matching and isolation necessary to interface a 50-ohm grounded test instrument with a differential circuit under test. They convert a balanced differential-mode signal to a grounded unbalanced 50-ohm signal with less than 2 dB insertion loss and greater than 15 dB return loss from 1.0 MHz to 1.2 GHz. This permits accurate and repeatable measurements of signal quality, such as insertion loss, transmission loss, and return loss. Each balun has a terminator network and correlation data for periodic calibration verification. Terminal pins to connect the network under test to the balun are included.





## ***Fibre Channel and CMI line interface products for today's fastest LAN and WAN applications.***

### ***Bi-directional fiber (NRZ) to copper (CMI) converter***

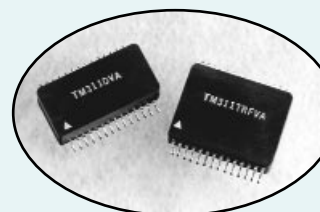
Built for E4/STM-1/OC3 applications to conduct bi-directional cross media data, voice, and video communications at fiber speed data rates. These modules provide all connections and signal conditioning for NRZ/CMI network junctions. Besides the signal connections, all that is required is 12Vdc power. Very low transmit/receive jitter. Loss of signal detection. Maximum operating distance exceeds 200 meters on 75 ohm RG-6/u and RG-11/u coaxial cable. Compact and easy to install.



### ***SONET/SDH (CMI) serial line interface modules (LIM)***

Compact, one-package line interface units for interfacing to the most widely used SONET/SDH chip sets for E4/STM-1 applications.

CMI transceiver line interface modules offer a convenient, one package, high performance solution for the complex chip interfacing requirements of CMI applications. The compact packages include transformer coupling for both  $T_X$  and  $R_X$  functions, an equalizer, a differential amplifier, and buffering for ECL level input and output. Designed to be inter-operable with existing ECL fiber transceiver drivers, the transceivers meet SONET/ITU-T requirements for coded mark inversion (CMI) data transmission over copper. The transceivers function equally well in both 311.04 Mb/s SONET STM-1 CMI and 278.528 Mb/s SONET E4 CMI applications, delivering fiber speed data transmission and reception over more than 200 meters of 75 ohm RG-6/u or RG-11/u coaxial cable.



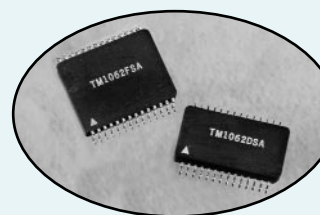
### ***Fibre Channel serial line interface modules (LIM)***

Designed to be inter-operable with existing ECL fiber transceiver drivers, these fibre channel copper transceiver line interface modules drive high frequency (fiber speed) signals over copper media and offer high clarity over extended distances.

Passive (non-buffered) transceiver models serve short haul applications of 10 to 30 meters over shielded twisted pair (STP), twinax, mini coax, or video coaxial cable.

Active models with buffered "receive" are built for long haul applications where losses accumulate and diminish (receive) signal strength. Active models require a minimum input signal of only 100 mV (from cable) to transceiver  $R_X$ .

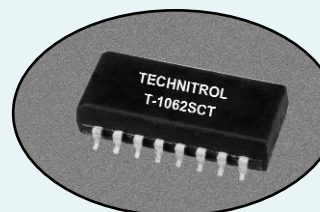
Two-way active models with buffered "receive" and buffered "transmit" are used in long haul applications to recondition the signal to the appropriate drive level. Transmitter output signal level is 1100 mV minimum. *Achieve fiber speed data and communications over 100+ meters of copper.*



### ***Fibre Channel (SAN) dual transformers***

Designed specifically for point-to-point coupling to 150 ohm twinax cable. The isolation transformers protect the station from static charges that may develop on the cable and prevents ground loop currents from being transferred between stations. The devices have also been designed to provide common mode rejection within the transmission band and thus reduce EMI.

The wide bandwidth of these devices minimizes data dependent jitter by providing fast signal rise times. Low-end bandwidth also minimizes base-line wander, another contributor to jitter. The dual package allows connection of both the transmit and receive channel.





## WARRANTY

Pulse Specialty Components warrants for a period of 90 days from the date of shipment, that under normal use and service, its products will be free from defects in workmanship and material. Pulse Specialty Components' sole responsibility under this warranty is, at its option, to repair or replace, without charge, any defective product or part, or to credit buyer for the purchase price of such defective product, provided:

- 1) Buyer promptly notifies Pulse Specialty Components in writing within the warranty period, and
- 2) The defective product or part is returned to Pulse Specialty Components with transportation charges prepaid by Buyer, and
- 3) Pulse Specialty Components examination of such product shall disclose to its satisfaction that said defect exists and has not been caused by misuse, neglect, improper installation, repair or alteration, or accident.

EXCEPT FOR THE ABOVE WARRANTY AND THE IMPLIED WARRANTY OF TITLE, PULSE SPECIALTY COMPONENTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. NO LIABILITY IS ASSUMED FOR EXPENDABLE ITEMS SUCH AS LAMPS AND FUSES. PULSE SPECIALTY COMPONENTS WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY CIRCUMSTANCES.



**SPECIALTY  
COMPONENTS**