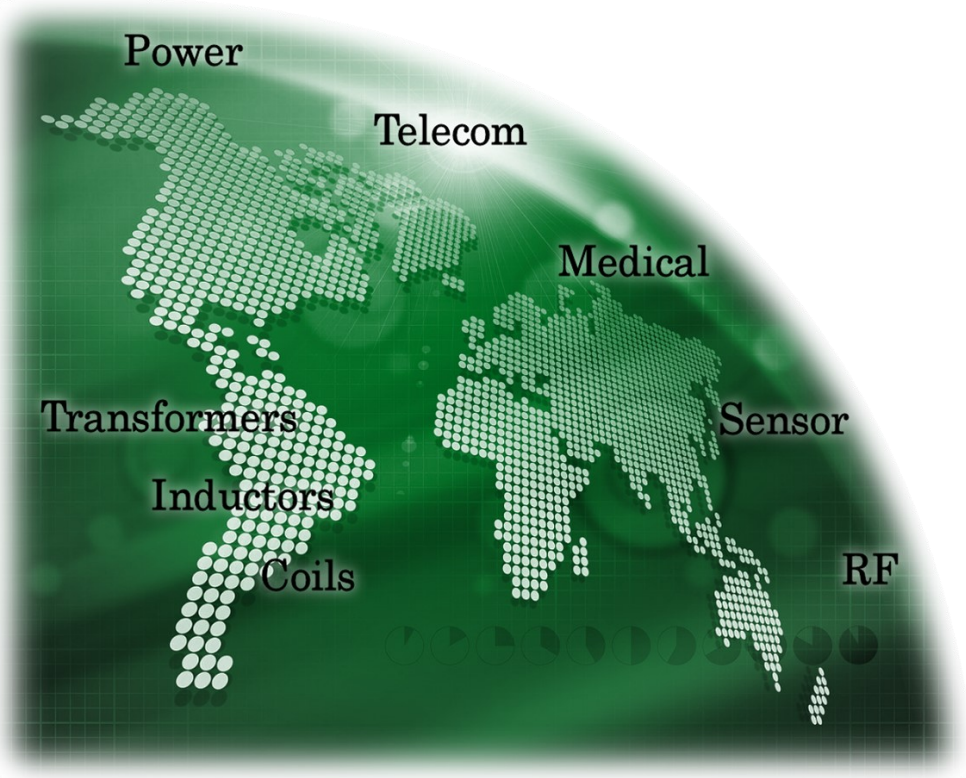
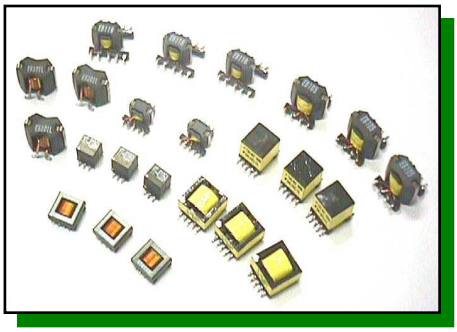
MINNTRONIX

Wind Up the Best ®



Short Form Catalog with Web ID Links



Minntronix is a custom-design magnetics manufacturer with a catalog offering. Our experienced Engineering staff is available to help with your magnetics needs. We are focused on prompt response in the support of your design efforts. We will work with you at any stage from concept to complete specifications; making recommendations for cost, size and performance - including tooling when required.

This short form catalog is designed to help you quickly find the Minntronix products you seek. Use the Series Name / Web Reference IDs on the following pages to search www.minntronix.com or follow the links to see the complete catalog pages.

Please contact Minntronix for quotations, samples or Engineering support at:

productsales@minntronix.com, engineer@minntronix.com

or by telephone: 1.888.244.3173 (US and Canada) +1.605.884.0195 (International)

Facilities

Corporate Headquarters—SD, USA

Factory Building I –China

Factory Building II –China

Factory Building III –China

Telecommunications, General Pulse and Digital Audio Transformers

Voiceband and Analog Modem Transformers

Series	Description	
MT-11200		Through-Hole Modem Transformers
MT-20100L		Low Profile Modem Transformers
MT-20100S		Standard Telecommunication Transformers
MT-21600		Internationally Approved Coupling Transformers
MT-25000THT		Pocket/Laptop Modem Transformers
MT-25000SMD		Pocket/Laptop Modem Transformers
MT-25100		Surface Mount/PCMCIA Transformers
MT-62100		Low Profile Coupling & Hybrid Transformers

ISDN U-Interface Transformers and Chokes

Series	Description	
MT-41900		Encapsulated CM Chokes for ISDN
MT-42000		Encapsulated and RM-style
MT-42050		TT-style

DDS and 64Kbps DS0 Interface Transformers

Series	Description	
MT-44100		64Kbps DS0 Encapsulated
MT-46000		DDS EP, TT-style, Pulse Transformers

ADSL Transformers and Inductors

Series	Description	
MT-48000A-THT		EP and TT-style Pulse Transformers
MT-48000A-SMD		TEP Pulse Transformers
MT-48050		RM, EP-style Splitter Inductors
MT-49050		EP-style Line Transformer

T3/DS3/E3/STS-1 Transformers

Series	Description	
MT-45100A		Through-Hole, Surface Mount
MT-45100B		Through-Hole, Surface Mount

Pulse, Digital Audio and Ethernet Transformers

Series	Description	
MT-32900		T-Case Pulse Transformers
MT-33200		6 Pin RF/Pulse Transformers
MT-48000AUDIO		Digital Audio for AES/EBU, S/PDIF
MT-83000		Isolation Transformers for Ethernet
MT-83100		16 Pin DIP Transformers

ISDN-S Interface Transformers

Series	Description	
MT-41500		EP-style
MT-41550		RM-style
MT-41800		Encapsulated, Through-Hole
MT-42400		Encapsulated, High-isolation
MT-45000		Surface Mount, Dual

T1/E1/CEPT/ISDN Primary Rate Transformers

Series	Description	
MT-40000		T-Case, DIP
MT-40050		EP-style
MT-42100		Encapsulated

HDSL Transformers

Series	Description	
MT-47000		EFD, EP-style Pulse Transformer
MT-47050		TT-style Pulse Transformer
MT-48000G		TEP-style G.SHDSL Pulse Transformer
MT-49000		EP-style SHDSL / HDSL2 / HDSL4

VDSL Transformers and Inductors

Series	Description	
MT-49100		EP-style Pulse Transformer
MT-49150		EP-style POTS Filter Splitters Inductor

SMD Power Inductors

Unshielded SMD Power Inductors		
Series	Description	
MT-530	6.6x4.45x2.92mm	1.0 to 1000uH, 2.9 to 0.1Adc
MT-531	12.95x9.5x3.1mm	10 to 1000uH, 2.4 to 0.1Adc
MT-532	12.95x9.5x5.21mm	1.0 to 1000uH, 9.0 to 0.3Adc
MT-533	12.95x9.5x11.43mm	10 to 1000uH, 8.0 to 0.8Adc
MT-534	18.54x15.24x7.11mm	1.0 to 1000uH, 20 to 1.0Adc

Shielded SMD Power Inductors		
Series	Description	
MT-538	6.6x4.45x2.92mm	1.0 to 10000uH, 1.4 to 0.017Adc
MT-539	12.95x9.50x5.08mm	1.0 to 1000uH, 5.6 to 0.32Adc
MT-540	18.54x15.24x7.62mm	10 to 1000uH, 8.0 to 0.8Adc

Shielded SMD Power Inductors		
Series	Description	
MT-550	7.3x7.3x3.9mm	10 to 1000uH, 1.68 to 0.16Adc
MT-551	7.3x7.3x4.7mm	10 to 1000uH, 1.84 to 0.18Adc
MT-552	12.2x12.2x4.8mm	3.9 to 330uH, 6.5 to 0.5Adc
MT-553	12.2x12.2x6.2mm	1.3 to 1000uH, 8.0 to 0.4Adc
MT-554	12.2x12.2x8mm	1.2 to 1000uH, 10 to 0.55Adc
MT-555	12.2x12.2x4.8mm	10&45 to 10&47uH, 4.0Adc
MT-556	12.2x12.2x6.2mm	5.6&26.5 to 12&45uH, 5.3 to 4.0Adc
MT-557	12.2x12.2x8.0mm	7.6&38 to 10&178uH, 7.0 to 4.5Adc

Shielded SMD Power Inductors		
Series	Description	
MT-564	7.8x7x4.5mm	10 to 270uH, 1.65 to 0.33Adc
MT-565	10x9x5mm	10 to 470uH, 2.06 to 0.33Adc
MT-566	12.7x11.6x5.4mm	10 to 820uH, 2.65 to 0.36Adc

Shielded SMD Power Inductors		
Series	Description	
MT-579	14x13x11mm	0.22 to 10uH, 40.5 to 5.3Adc

Unshielded SMD Power Inductors		
Series	Description	
MT-535	8.89x6.1x5mm	0.56 to 47.0uH, 7.7 to 0.87Adc
MT-536	13.21x9.91x6.35mm	0.33 to 4.7uH, 20.0 to 5.4Adc
MT-536A	13.21x9.91x5.46mm	1.0 to 2200uH, 10.0 to 0.26Adc
MT-537	22.35x15.5x8mm	0.78 to 15.0uH, 30 to 8.0Adc

Unshielded SMD Power Inductors		
Series	Description	
MT-541	3.5x2.4x2.4mm	1.0 to 330uH, 2.2 to 0.09Adc
MT-542	4.5x4.2x3.5mm	1.0 to 68uH, 2.7 to 0.37Adc
MT-543	5.8x5.4x2.8mm	1.2 to 470uH, 4.2 to 0.15Adc
MT-544	5.8x5.4x3.4mm	1.0 to 1000uH, 4.5 to 0.13Adc
MT-545	5.8x5.2x4.5mm	10 to 1000uH, 1.5 to 0.14Adc
MT-546	7.8x7.2x3.8mm	10 to 330uH, 1.44 to 0.28Adc
MT-547	7.8x7.2x5.5mm	10 to 470uH, 2.3 to 0.34Adc
MT-548	10x9.2x4.3mm	10 to 560uH, 2.4 to 0.32Adc
MT-549	10x9.2x5.8mm	10 to 820uH, 2.6 to 0.24Adc
MT-558	7.6x7.6x3.6mm	1.0 to 100uH, 3.6 to 0.39Adc
MT-559	7.6x7.6x5.2mm	1.0 to 470uH, 2.9 to 0.19Adc

Shielded SMD Power Inductors		
Series	Description	
MT-560	6x6x2.7mm	4.10 to 330uH, 1.95 to 0.18Adc
MT-561	6x6x3.6mm	2.60 to 680uH, 2.6 to 0.16Adc
MT-562	7x7x3.6xmm	3.0 to 680uH, 3.0 to 0.20Adc
MT-563	7x7x4.7mm	3.3 to 1000uH, 3.5 to 0.20Adc

Shielded SMD Power Inductors		
Series	Description	
MT-567	6x6x2.8mm	10 to 330uH,1.1 to 0.19Adc
MT-568	7x7x3mm	3.3 to 47uH,1.6 to 0.54Adc
MT-569	7x7x3.3mm	3.3 to 150uH, 1.8 to 0.25Adc
MT-570	7.6x7.6x3.6mm	1.0 to 100uH, 3.12 to 0.41Adc
MT-571	7.6x7.6x5.2mm	1.0 to 560uH, 2.8 to 0.23Adc
MT-572	10.1x10.1x4.5mm	10 to 1500uH, 2.5 to 0.22Adc
MT-573	12.5x12.5x5.5mm	10 to 1000uH, 4.4 to 0.46Adc
MT-574	12.5x12.5x6.5mm	2 to 220uH, 2.6 to 1.11Adc
MT-575	12.5x12.5x7.5mm	1.2 to 220uH, 8.2 to 1.3Adc

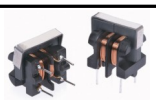
Miniature SMD Inductors		
Series	Description	
MT-576	3.2x1.6x2.3mm	0.12 to 100uH, 0.970 to 0.08Adc
MT-577	3.2x2.5x2.3mm	1.0 to 560uH, 0.445 to 0.04Adc
MT-578	4.5x3.2x2.9mm	1.0 to 2200uH, 0.5 to 0.03Adc

High Current SMD Power Inductors		
Series	Description	
MT-590	7.15x7.0x5.0mm	0.072 to 0.18uH, 65 to 25Adc
MT-592	10.2x7.0x5.0mm	0.085 to 0.22uH, 82 to 33Adc
MT-595	12.5x11.5x9.0mm	0.11 to 0.463uH, 120 to 37Adc
MT-597	14.5x13.5x8.0	0.11 to 0.44uH, 120 to 30Adc

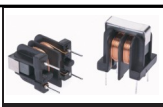
Inductors

General Purpose			
Series	**Case Styles**	**Series**	**Case Styles**
MT-50000 General Purpose Inductors		MT-51900 Standard Low Power Inductors	
MT-51000 Standard Low Power Inductors		MT-52200 High Current Toroidal Inductors	

- Mounting base assures stability, pins held securely
- Enclosures and base material meet UL 94V-0 flammability requirements
- SMPS averaging second ripple filter
- Single-layer designs
- May be used as differential mode inductor in EMI filters
- Economical baseless version available



AC Line Filters EMI/ RFI CMC (UU9.8 Type)		
Series	**Description**	
MT-52300	17 x 11 x 16.51 mm	0.5 to 10mH; 1.0 to 0.1A Iac



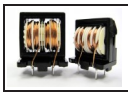
AC Line Filters EMI/ RFI CMC (UU10.5 Type)		
Series	**Description**	
MT-52400	19 x 17 x 23 mm	0.6 to 10mH; 2.0 to 0.3A Iac

AC Line Filters EMI/ RFI CMC (SMD UU9.8 Type)		
Series	**Description**	
MT-52300A	17.5 x 14 x 9 mm	0.5 to 10mH; 1.0 to 0.1A Iac

AC Line Filters EMI/ RFI CMC (UU15.7 Type)		
Series	**Description**	
MT-52500	23 x 19 x 27.5 mm	1.5 to 30mH; 1.5 to 0.4A Iac

- Reduces electromagnetic interference (EMI) and radio frequency interference (RFI)
- Protects AC mains from the effects of switching regulators
- Wide range of inductances and current ratings available
- Inductance tested at 10kHz, 0.1Vrms
- Rated voltage: 250VAC/VDC
- Withstanding voltage: 1500-2000VDC (one minute between lines)
- Insulation resistance at 500VDC more than 100MΩ (between lines)

SMD Common Mode Chokes		
Series	**Description**	
MT-52600	14 x 14 x 8 mm	100 to 10000uH; 7 to 0.33Arms*



High Peak Impedance Common Mode Chokes		
Series	**Description**	
MT-52800	30.5 x 22.5 x 35.5 mm (ET28) 25.5 x 18.5 x 30.5 mm (ET24)	5.6 to 25mH; 2.5 to 1.0A Iac (ET28) 2.0 to 15.0mH; 2.5 to 1.0A Iac (ET24)

* other inductance values available

Common Mode Chokes for Three-Phase Power		
Series	**Description**	
MT-52900	OD 42.5 max, H 30.5 max (Type A) OD 31.0 max, H 24.5 max (Type B)	2.0 to 3.3mH; 5.0 to 3.0A Iac (Type A) 5.0 to 12.7mH; 10.0 to 6.0A Iac (Type B)

Current Sense Transformers

Series	Secondary Furnished TH CTs
MT-72000	• 2500Vrms primary to secondary Hi-pot • Frequency range 20kHz to 200kHz • Encapsulated construction • L: 0.72 in (18.3 mm) W: 0.413 in (10.49 mm) • H: 0.839 in (21.31 mm) ID: 0.177 in (4.50 mm)

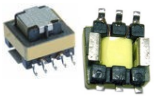
Series	Primary & Secondary Furnished TH CTs
MT-72100	• Encapsulated with plastic housing and potting • 3750Vrms primary to secondary Hi-pot • Frequency range 20kHz to 200kHz • L: 0.9 in (22.86 mm) W: 0.7 in (17.78 mm) • H: 0.7 in (17.78 mm)

Series	Epoxy-Coated Inductors
MT-72200	• 2500Vrms primary to secondary Hi-pot • Frequency range 20kHz to 200kHz • Epoxy coated construction • L: 0.8 in (20.32 mm) W: 0.75 in (19.05 mm) • H: 0.47 in (11.81mm) ID: 0.2 in (5.08 mm)

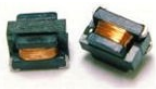
Series	SMD Current Sense Transformers-to 6 Amps
MT-72300 MT-72300A	• Compatible with surface mount board assembly processes • Optimal performance at 100kHz and above • Primary rated for 6 Amps AC • Custom designs available • L: 0.323 in (8.20 mm) W: 0.236 in (6 mm) • H: 0.217 in (5.51 mm) • Designed for switch power supply applications

Series	SMD Current Sense Transformer-to 20 Amps
MT-72300C	• High current-primary rated for 20 Amps • Designed for automatic pick and place • Operating frequency range from 10kHz to 1MHz • Low profile –4.1mm max height • L: 0.32 in (8.13 mm) W: 0.224 in (6.2 mm) • H: 0.161 in (4.1 mm)

Series	TH Current Sense Transformers
MT-72500	• 3000Vrms gate to drive winding test • Operating frequency from 50kHz to 500kHz • Popular winding configurations • L: 0.81 in (20.57 mm) W: 0.58 in (14.73 mm) • H: 0.75 in (19.05 mm)

Series	SMD Current Sense Transformers-to 35 Amps
MT-72400 MT-72600 	• High current-primary rated for 35 Amps • Designed for automatic pick and place • MT-72400 Operating frequency range: 50kHz to 500kHz • MT-72600 Operating frequency range up to 100kHz • Low profile –10mm max height (MT-72400) • Low profile –7mm max height (MT 72600) • L: 0.787 in (20 mm) W: 0.538 in (14.8 mm) • H: 0.394 in (10 mm)

Series	TH Current Sense Transformers with Primary
MT-72700	• Perfect for high efficiency synchronous converters • Frequency range 20kHz to 500kHz • 50Arms peak primary currents, 35Arms sustained • Ultra low primary resistance • High strength construction • 1500Vrms primary to secondary Hi-pot

Series	Current Sense Transformers-to 2 Amps
MT-72800 	• Low profile-height 3.0mm max • Primary rated for 2.0 Amps • Operating frequency range up to 300kHz • Designed for automatic pick and place • L: 0.177 in (4.5 mm) W: 0.165 in (4.2 mm) • H: 0.118 in (3.0 mm)

Series	Current Sense Transformers- to 10 Amps
4810559R 4810966R	• For use with Linear Technology LT2940 Power & Current Monitor LC • For 47-400Hz applications • High Isolation • Two versions available to meet varying cost vs. accuracy requirements.

Series	Industrial Current Sense Transformers
MT-73000 MT-73110 MT-73150 MT-73151 MT-73200 Custom Design Form	• UL and CUL listing per Minntronix XODW2 Instrument Transformer Classification • These rugged units offer great value in industrial class CT coils • Applicable Standard: ANSI C57.13. All accuracy classes available • Insulation: 10kV BIL Full Wave (600 Volt Class) • All cases are marked for polarity. Additional marking available • Mounts easily on the conductor. No mounting brackets necessary, available if needed • Green and black cases available (custom colors by request) • Frequency Range: 50-400Hz. (Extended ranges and accuracies available) • All round models include 2- #16 or #18 AWG, 24"long secondary leads(X1=white, X2=Black)

Switch-mode Power Transformers

OFF-LINE Switch Mode Power Transformers

Series	Tiny Switch
MN-25000 MN-26000	• Units designed to match the application of TNYXXX series, from Power Integrations with universal AC input as designated • Operating temperature range: 0°C - 70°C

Series	Top Switch
MS-10000 MS-20000 MS-41000	• Units designed to match the application of TOPXXX series from Power Integrations with universal AC input as designated • Operating temperature range 0ºC - 70ºC

Power Over Ethernet (PoE) Transformers

MN-120

- Works with National Semiconductor LM5071 PD Controller
- Optimized for 250kHz with 14-60Vin
- Ambient Temperature: -40°C to +85°C
- Operating/Storage Temp Range: -40°C to +85°C
- 10V Auxiliary Winding

Driving Inverter Transformers

MEL

- Storage Temperature Range: -20°C to +70°C
- Operating Ambient Temperature Range: -10°C to +55°C
- Wider temperature ranges are available
- Typical Operating Frequencies are between 400Hz to 1kHz
- Infrared reflow temp is 240°C for 30 seconds maximum

Power Over Ethernet (PoE) Transformers

MN-300

- Power Rating: 30W PoE per IEEE 802.3at.
- Optimized for 250kHz with 36-72Vin
- Ambient Temperature: -40°C to +125°C
- Operating / Storage Temp Range: -40°C to +125°C
- 12V Auxiliary Winding

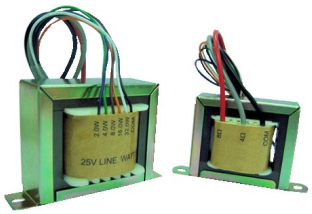
Power Integrations Design Reference

MTEPR.MTDER

Matched to TNY, TOP, LNK, DAP ICs

Mechanical Dimensions of Typical Switch-mode Packages

Audio Transformers

Series	Description
MLM **Line Matching** 	• Couples 4 or 8 ohms speakers to 25, 70.7 or 100 volt line outputs of amplifiers • Up to 5 power tap levels available (except 100 Volts which has 4) • Primary taps marked in watts to match speaker power • Frequency response and Insertion Loss reference @1kHz at full rated power • Distortion reference @100kHz at full rated power • Efficiency reference @1kHz at full rated power each tap across 4 or 8 ohms resistive load

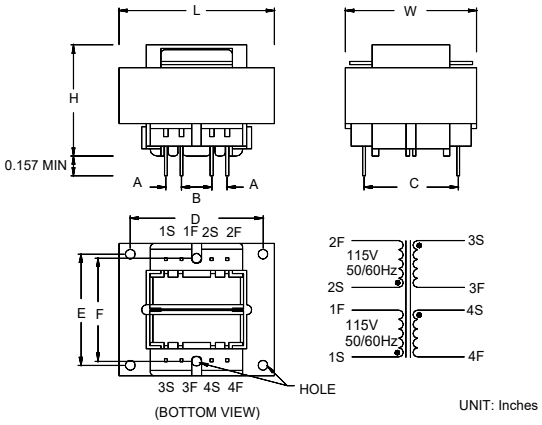
Linear Power Transformers (Part I)

Series

Universal Series Power Transformers

MHS

- The MHS series of universal transformers is designed and built to meet U.S. and International Safety Standards
- Available in both PC and Chassis-mount construction
- Power ratings from 2.5VA to 56VA, split-bobbin construction with insulating shrouds provides 4000VRMS isolation between primary and secondary
- Special construction reduces primary to secondary capacitance



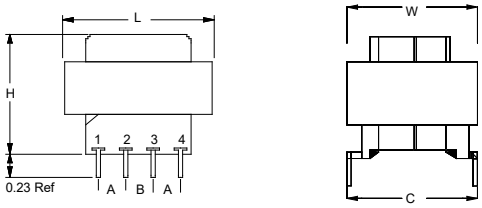
VA	WT. (lb)	L ±0.04	W ±0.04	H ±0.04	A ±0.012	B ±0.012	C ±0.02	D ±0.04	E ±0.04	F ±0.04	PIN DIM ±0.006	HOLE ±0.02
2.5	0.25	1.634	1.320	1.125	0.200	0.250	1.000	-----	-----	1.062	0.025 SQ	0.126
5.0	0.37	1.634	1.320	1.375	0.200	0.400	1.000	-----	-----	1.062	0.025 SQ	0.126
10.0	0.53	1.910	1.600	1.358	0.200	0.400	1.140	-----	-----	1.260	0.038 SQ	0.126
20.0	0.90	2.265	1.890	1.594	0.400	0.400	1.460	-----	-----	1.500	0.038 SQ	0.150
30.0	1.15	2.625	2.195	1.562	0.550	0.275	1.680	2.200	1.732	-----	0.045 SQ	0.177
56.0	1.70	3.030	2.520	1.791	0.600	0.300	1.900	2.520	2.000	-----	0.045 SQ	0.197

Series

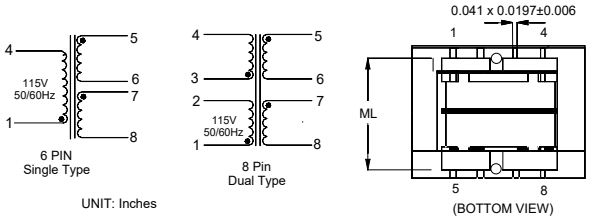
Split Bobbin Power Transformers

MPS

- UL Approved Canada / USA: Class B (Class 130°C)
- High isolation - 2500V Hi-pot
- Low capacitance coupling-Minimizes line noise and false triggering
- 115V Single or 115/230V 50/60Hz Dual Primary
- Dual secondary's for either parallel or series configuration



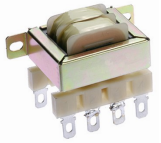
SIZE	VA	L ±0.04	W ±0.04	H ±0.04	ML ±0.02	A ±0.012	B ±0.012	C ±0.02	HOLE ±0.02
2	1.1	1.400	1.185	0.938	-----	0.250	0.250	1.200	-----
3	2.4	1.400	1.185	1.188	-----	0.250	0.250	1.200	-----
4	6.0	1.634	1.320	1.313	1.062	0.250	0.350	1.280	0.126
5	12	1.910	1.600	1.438	1.260	0.300	0.400	1.410	0.126
6	20	2.265	1.890	1.438	1.500	0.300	0.400	1.600	0.150
7	36	2.625	2.195	1.563	1.732	0.400	0.400	1.850	0.177



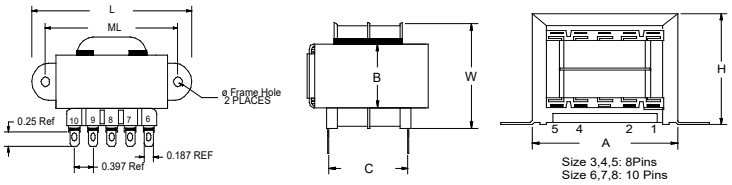
Series

Side Termination Power Transformers

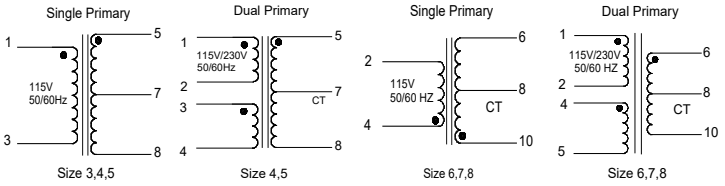
MPPS.MPPD



- PCB screw mounting
- Side terminals for input / output connection
- Optional lead wire termination available



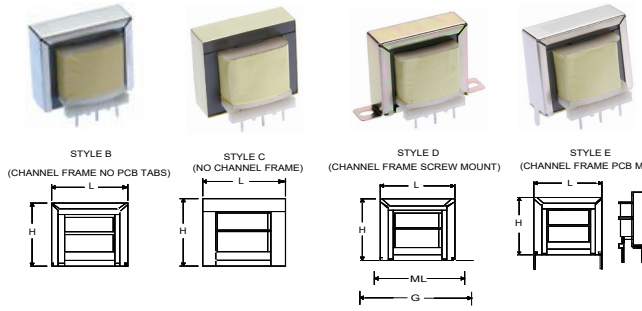
Size	VA	L ±0.04	W ±0.04	H ±0.04	A ±0.04	B ±0.04	C ±0.02	D ±0.02	ML ±0.04	Frame Hole±0.02
3	2.4	2.062	1.062	1.187	1.450	0.563	0.397	0.945	1.750	0.138x0.197
4	6	2.375	1.250	1.375	0.813	2.680	0.397	1.043	2.000	0.157x0.236
5	12	2.813	1.375	1.720	1.938	1.063	0.397	1.122	2.375	0.157x0.236
6	30	3.250	1.688	0.688	2.325	2.563	0.397	1.300	2.813	0.177x0.275
7	56	3.688	1.812	1.625	1.063	3.090	0.397	1.438	3.125	0.157x0.275
8	100	4.031	2.250	1.970	2.250	1.313	0.397	1.662	3.563	0.177x0.216

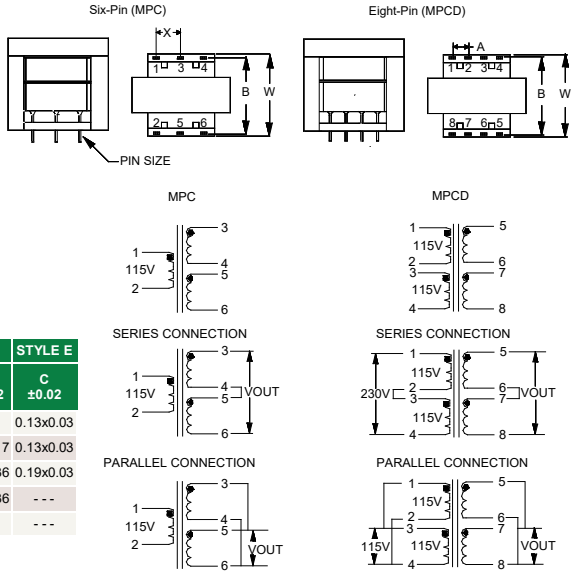


Linear Power Transformers (Part II)

Series — **Miniature Plug In Power Transformers**

MPC



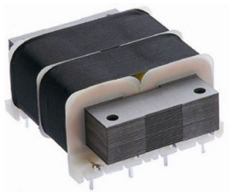


VA	STYLE B.C.D.E.				STYLE C			STYLE B.D.E			STYLE D			STYLE E
	6 pin X±0.012	8 pin A±0.012	B ±0.04	PIN SIZE ±0.008	L ±0.04	W ±0.04	H ±0.04	L ±0.04	W ±0.04	H ±0.04	G ±0.04	ML ±0.04	Frame Hole±0.02	C ±0.02
1.0	0.250	0.200	1.200	0.045X0.020	1.025	1.375	0.850	- - -	- - -	- - -	- - -	- - -	- - -	0.13x0.03
1.2	0.312	0.200	1.000	0.039x0.020	1.400	1.125	1.188	1.500	1.125	1.220	2.062	1.77	0.138x0.217	0.13x0.03
4.4	0.400	0.250	1.100	0.039x0.020	1.634	1.250	1.375	1.720	1.250	1.400	2.375	2.00	0.157x0.236	0.19x0.03
10	0.400	0.250	1.300	0.039x0.020	1.980	1.31	1.80	1.970	1.50	1.72	2.813	2.38	0.157x0.236	- - -
24	0.400	0.250	2.100	0.039x0.020	1.834	2.250	1.375	- - -	- - -	- - -	- - -	- - -	- - -	- - -

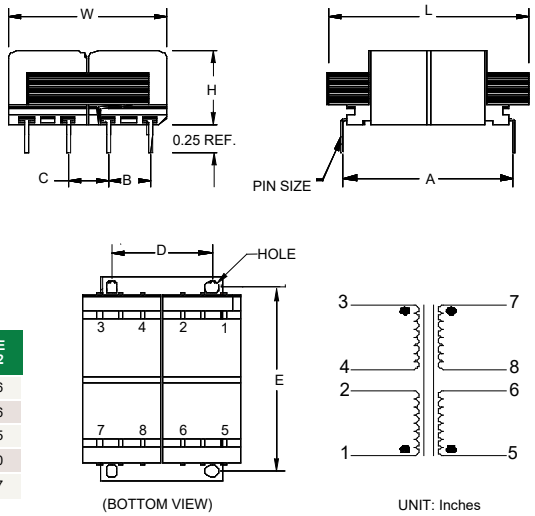
Series — **Lower Profile Power Transformers**

MPL-2.5/6/12VA

MPL-24/48VA



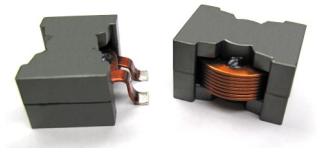
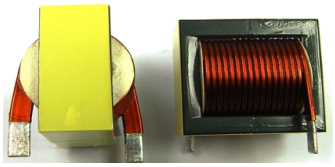
- UL Approved: Temp Class A
- Primary 115/230V 50/60Hz input, single secondary or dual isolated output for DC supplies (2.5, 6 and 12VA)
- Split bobbin for low leakage application, 1500V hipot
- Low capacity coupling minimizes line noise and false triggering
- 115/230V 50/60Hz high power (24 and 48VA)
- Rugged high-current pins



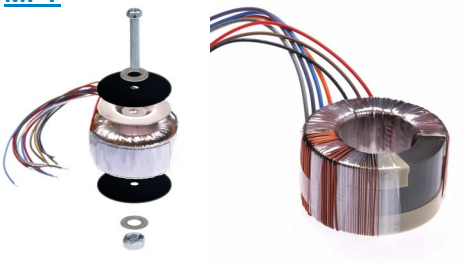
SIZE (VA)	L ±0.04	W ±0.04	H ±0.04	A ±0.02	B ±0.012	C ±0.012	D ±0.02	E ±0.02	PIN SIZE ±0.01	HOLE ±0.02
2.5	1.875	1.562	0.650	1.600	0.375	0.375	0.874	1.624	0.040x0.0197	0.126
6	1.875	1.562	0.850	1.600	0.375	0.375	0.874	1.624	0.040x0.0197	0.126
12	2.520	2.000	1.065	2.000	0.500	0.500	0.984	2.008	0.040x0.0197	0.165
24	2.870	2.250	1.250	1.900	0.600	0.530	1.315	2.420	0.04 SQ	0.150
48	3.120	2.500	1.375	2.180	0.600	0.660	1.260	2.620	0.04 SQ	0.197

For more information follow the interactive links or visit www.minntronix.com and enter the series number into the search box.

Flat-wire Inductors

Series	Description
MTF-260X SMT 	• Flat helical wound coil • Designed for high current, high volt•time applications • Low DCR, lower loss, reduced size, high efficiency, less temperature rise • 500Vrms winding to core isolation
MTF-420XX 	• Designed for high current, high volt•time applications • Low DCR, low loss, reduced size, high efficiency, less temperature rise • 500Vrms winding to core isolation • Vertical or horizontal versions available

Toroidal Linear Power Transformers

Series	Description
MPT 	• Low noise, high efficiency, excellent load regulation, easy assembly • Very low no-load losses and magnetizing current • Half the size and weight of non-toroidal transformers for equivalent power ratings • Various input options: 100V/110V/117V/120V/220V/230V/240V, 50/60HZ • Dielectric strength greater than 3kV, 1 minute between primary and secondary • Electrical parameters tested 100% in production • Application power range 10VA to 750VA available • Class B insulation system (optional)

RF Balun Transformers

Series	Description
MRF-11001	1:1 Flux Coupled Transformer 3.0-200MHZ
MRF-11002	1:4 Flux Coupled Transformer 2-800MHZ
MRF-11003	1:4 Flux Coupled Transformer 1-350MHZ
MRF-11004	4:1 Flux Coupled Transformer 1-650MHz
MRF-11005	1:2.56 Flux Coupled Transformer 5-65MHZ
MRF-11006	1:4 Flux Coupled Transformer 1-350MHz
MRF-11007	1:1 Flux Coupled Transformer 5-200MHZ

Series	Description
MRF-20001	1:1 Transmission Line Transformer 4.5-3000MHZ
MRF-20002	1:1 Transmission Line Transformer 5-1000MHZ
MRF-23001	2.6:1 Transmission Line Transformer 45-1200MHZ
MRF-25001	1:1 Transmission Line Transformer 50-1200MHZ
MRF-25002	1:1 Transmission Line Transformer 46-1200MHZ
MRF-27001	1:2 Impedance Matching Balun 5-1200MHz
4813040R	1:1 Transmission Line Transformer 4.5-3000MHZ

Our Quality Commitment

- Our yearly PPM numbers demonstrate our commitment to high quality and value.
- We strive for zero defects and 100% on-time delivery and we closely measure our performance on both.
- Our success depends on our supplier partners; we treat them with respect while requiring the same standards of commitment from them.
- We provide our worldwide employees with a safe and effective work environment to ensure success in producing high quality products.
- We meet or exceed all customer specifications. Beyond that, we strive to build the strongest and most consistently built components in our industry.

Company History

1990	Company Established in Tracy, Minnesota, USA
1993	Opening of Lightion (pronounced lye-shin) facility in China
2000	New Ownership
2002	Private Stock Exchange between Minntronix and Lightion
2003	Engineering expansion at both USA and China facilities using Toyota model of lean mfg
2004	USA Operations relocated to Watertown, South Dakota, USA
2006	Shanghai, China sales office established
2008	Released expanded catalog and launched new website. Lean upgraded to 5S program
2009	Expanded product line to include RF Magnetics and CT Sensors
2010	Full adoption of Motorola University 6 Sigma Program
2011	11 Candidates pursuing 6 Sigma Black Belt
2012	Expansion of USA magnetic engineering (electrical and mechanical)
2013	Expansion of RF design capabilities
2014	Modernized / upgraded China transformer facility
2015	Minntronix celebrates its 25th Anniversary
2016	Factory QMS achieved ISO-13485:2003 certification.

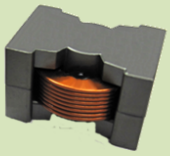
MINNTRONIX

Wind Up the Best®

Applications and Technologies

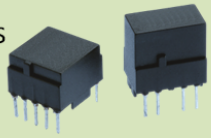
Power Magnetics

- Switchmode
- Miniature Switchmode
- Common Mode Inductors
- Linear (Class 2-Class 3 – Double Insulated)
- Power Conditioning
- Current Sense
- Toroidal Power
- Filters
- Surface Mount Inductors



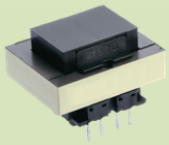
Telecommunications Magnetics

- xDSL (CO/CPE)
- T1/E1
- ISDN
- T3/E3/DS3/STS-1
- DDS Pulse
- Test
- Filters



Medical Magnetics

- 60601 Safety Systems
- Multiple Insulation Systems
- Isolated Power
- Antenna Coils
- Specialty Power Supplies



RF – Radio Frequency Coils

- Baluns
- Air Coils (IF & RF)
- Antenna Coils
- CATV Coils
- Filters

CT Sensors

- Measurement
- Protection & Relay
- Custom

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