

IOE INTER OUTSTANDING ELECTRONICS, INC.

IOE
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廣東省東莞市石碣鎮桔洲第三工業區



WeChat e-catalogue

CREATIVE POWER

Expect highest quality / price ratio few can offer.

2021

Content



1.Content	01
2.Company history	02
3.Company Milestone	03
4.Product Control Flowchart	04
5.Products Introduction	
5.1 Power Transformers	05
5.2 High Frequency Transformers	11
5.3 Inductors	15
5.4 Ignition coils	20
5.5 Audio Transformers	21
5.6 Slim Line Autotransformers Family	22
5.7 Switching Mode Power Transformers	23
5.8 Power Inductors	24
5.9 IOEEE5.0 series	30
5.10 IOECT-1304 series	31
5.11 IOE air coil series	32
5.12 IOEPFC3023-1.6	33
6.Production Equipments	34
7.Quality Assurance	35
8.OEM & ODM Services	37
9.Our Major Customers	38



Established in 1982, IOE is a Taiwan-based company with a factory in Shijie, Dongguan, China since 1991. We have over 36 years experience in the field of making transformers. Now the factory occupies 4500m², employs 400 skilled workers with annual production capability 400,000,000pcs. IOE has strong research and development capabilities, as well as high level of versatility in production, service, quality and operation. We believe that we have the ability to provide the best service to any customers.

For most of power & audio standard transformers, IOE keeps safety stocks in order to offer rapid delivery and good service for satisfying customer's requirement at any time. We have the digital controlling test meter, inductance test meter, high voltage test machine, winding machine, frequency test equipment and so on. We offer expertise in marketing, designing and manufacturing of power and audio transformer, toroid transformer, ferrite transformer, ignition coils, many other coil windings and other RJ connectors.

Many of the parts produced by IOE are made in accordance with customer's specification. We can provide our best support and most competitive price for special cases. If you are interest in working with a well-grounded professional, please get in touch with us!

Company Milestone

1982 Inter Outstanding Electronics Inc (IOE)
established in Taiwan



1991 Hongkong Tong Ru Industrial Electronics
Inc established in Dongguan



1999 ISO 9002:1994 certified

2003 ISO 9001:2000 certified

2005 Enlarged and removed to management region, Juzhou, shijie.

2006 Increased network products (RJ Connector Transformer)
production lines

2009 ISO 9001:2008 certified

2014 Class 130 (B) electrical insulation systems UL file E257517

2015 ERP carry out into purchasing & production operation

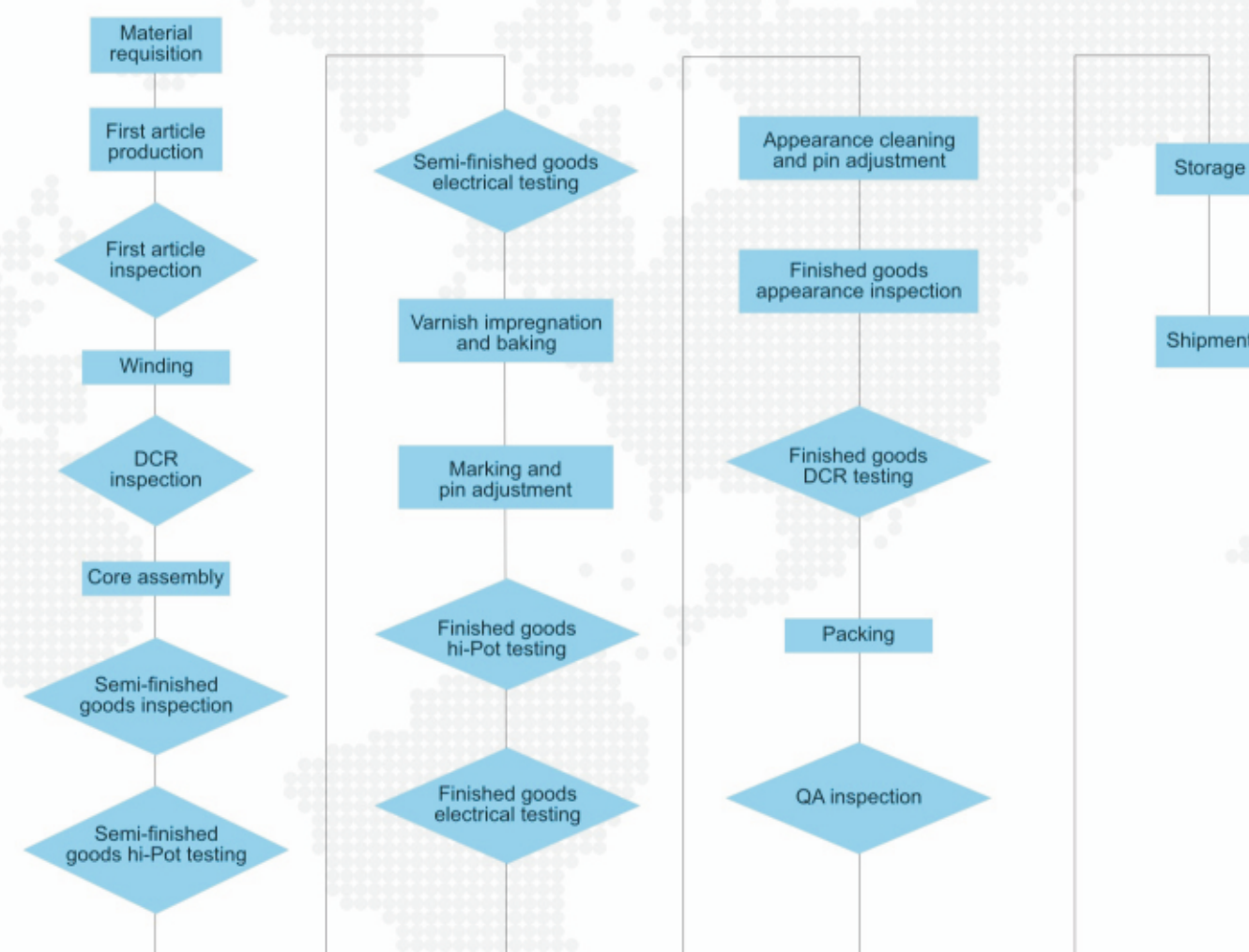
2018 ISO9001:2015 certified



Product Control Flowchart

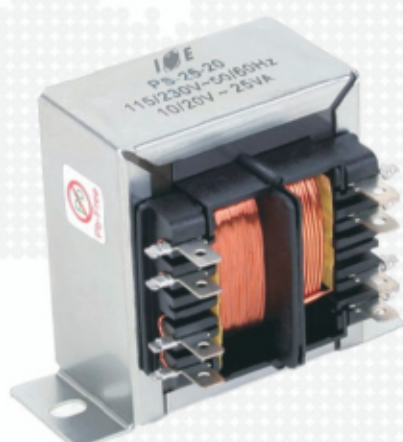
We promise

Sensitive, stable, safe, reliable and high-quality products and the spirit of keeping on improving will surely let our customers completely satisfied.



Products Introduction

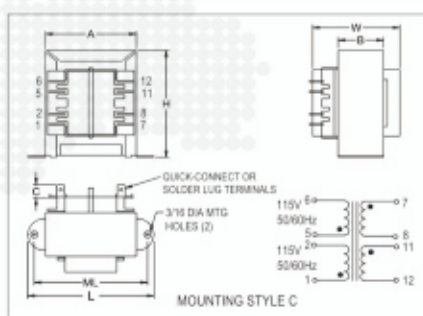
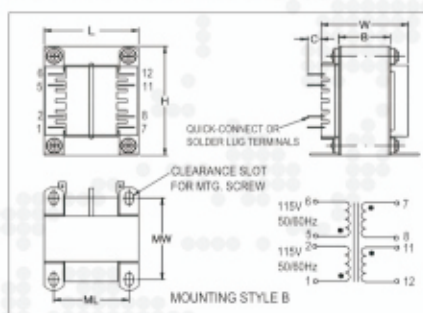
5-1、Power Transformers



All parts meet RoHS compliance.

FEATURES

- Power - 25VA to 175VA
- Chassis mounting
- Dual bobbin; double reinforced insulation
- High (4000V) isolation
- No crossover between primary and secondary winding leads
- Primaries : Dual primaries (115/230V - 50/60Hz)
- Secondaries can be series or parallel connected



UNIT: inch

Part Number	VA	Secondary RMS Rating	
		Series	Parallel
PS-25-10	25	10V C.T. @ 2.5A	5V @ 5.0A
PS-43-10	43	10V C.T. @ 4.3A	5V @ 8.6A
PS-80-10	80	10V C.T. @ 8.0A	5V @ 16.0A
PS-130-10	130	10V C.T. @ 13.0A	5V @ 26.0A
PS-175-10	175	10V C.T. @ 17.5A	5V @ 35.0A
PS-25-12	25	12.6V C.T. @ 2.0A	6.3V @ 4.0A
PS-43-12	43	12.6V C.T. @ 3.4A	6.3V @ 6.8A
PS-80-12	80	12.6V C.T. @ 6.3A	6.3V @ 12.6A
PS-130-12	130	12.6V C.T. @ 10.3A	6.3V @ 20.6A
PS-175-12	175	12.6V C.T. @ 14.0A	6.3V @ 28.0A
PS-25-16	25	16V C.T. @ 1.6A	8V @ 3.2A
PS-43-16	43	16V C.T. @ 2.7A	8V @ 5.4A
PS-80-16	80	16V C.T. @ 5.0A	8V @ 10.0A
PS-130-16	130	16V C.T. @ 8.1A	8V @ 16.2A
PS-175-16	175	16V C.T. @ 11.0A	8V @ 22.0A
PS-25-20	25	20V C.T. @ 1.25A	10V @ 2.5A
PS-43-20	43	20V C.T. @ 2.2A	10V @ 4.4A
PS-80-20	80	20V C.T. @ 4.0A	10V @ 8.0A
PS-130-20	130	20V C.T. @ 6.5A	10V @ 13.0A
PS-175-20	175	20V C.T. @ 8.8A	10V @ 17.6A
PS-25-24	25	24V C.T. @ 1A	12V @ 2A
PS-43-24	43	24V C.T. @ 1.8A	12V @ 3.6A
PS-80-24	80	24V C.T. @ 3.3A	12V @ 6.6A
PS-130-24	130	24V C.T. @ 5.4A	12V @ 10.8A
PS-175-24	175	24V C.T. @ 7.3A	12V @ 14.6A
PS-25-28	25	28V C.T. @ 0.9A	14V @ 1.8A
PS-43-28	43	28V C.T. @ 1.5A	14V @ 3.0A
PS-80-28	80	28V C.T. @ 2.8A	14V @ 5.6A
PS-130-28	130	28V C.T. @ 4.6A	14V @ 9.2A
PS-175-28	175	28V C.T. @ 6.25A	14V @ 12.5A
PS-25-36	25	36V C.T. @ 0.7A	18V @ 1.4A
PS-43-36	43	36V C.T. @ 1.2A	18V @ 2.4A
PS-80-36	80	36V C.T. @ 2.2A	18V @ 4.4A
PS-130-36	130	36V C.T. @ 3.6A	18V @ 7.2A
PS-175-36	175	36V C.T. @ 4.8A	18V @ 9.6A
PS-25-230	25	230V C.T. @ 0.11A	115V @ 0.22A
PS-43-230	43	230V C.T. @ 0.19A	115V @ 0.38A
PS-80-230	80	230V C.T. @ 0.35A	115V @ 0.7A
PS-130-230	130	230V C.T. @ 0.57A	115V @ 1.14A
PS-175-230	175	230V C.T. @ 0.76A	115V @ 1.52A

VA	Dimensions						Terminals
	L	W	H	A	B	C	
25	2.81	1.87	2.31	2.00	1.12	.31	.187
43	3.12	2.06	2.68	2.25	1.12	.31	.187
80	2.50	2.37	3.00	---	1.37	.31	.187
130	2.81	2.87	3.37	---	1.62	.37	0.25
175	3.12	2.87	3.75	---	1.62	.37	0.25
VA	Mtg. Style	Mtg. Dim.		Mtg. Screw	Wgt		
		ML	MW				
25	C	2.37	---	#6	1.25 lbs		
43	C	2.81	---	#6	1.6 lbs		
80	B	2.00	2.18	#6	2.8 lbs		
130	B	2.25	2.50	#8	4.1 lbs		
175	B	2.50	2.50	#8	5.5 lbs		

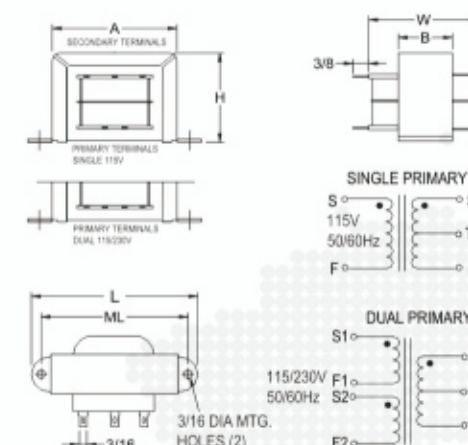
CHASSIS-TRAN Power Transformers



Quick connect or hard wiring ; high isolation.
All parts meet RoHS compliance.

FEATURES

- Channel frame mounting
- High (2500V) isolation ; 2500V RMS HIPOT
- No crossover between primary and secondary winding leads
- Vacuum impregnated
- Available in single or dual primary
- Center tapped secondary offers dual outputs



Size	VA	L	W	H	A	B	ML	Wgt
3	2.4	2.06	1.06	1.18	1.62	0.56	1.75	0.25 lbs
4	6	2.37	1.25	1.37	1.68	0.68	2.00	0.44 lbs
5	12	2.81	1.37	1.62	1.93	0.81	2.37	0.7 lbs
6	30	3.25	1.68	1.93	2.31	1.06	2.81	1.1 lbs
7	56	3.68	1.81	2.25	2.68	1.06	3.12	1.7 lbs
8	100	4.03	2.25	2.56	3.06	1.31	3.50	2.75 lbs

UNIT: inch

Part Number		Secondary RMS Rating
Single 115V	Dual 115/230V	
CT-3-10	not available	10V C.T. @ 0.25A
CT-4-10	DCT-4-10	10V C.T. @ 0.6A
CT-5-10	DCT-5-10	10V C.T. @ 1.2A
CT-6-10	DCT-6-10	10V C.T. @ 3.0A
CT-7-10	DCT-7-10	10V C.T. @ 5.0A
CT-8-10	DCT-8-10	10V C.T. @ 10A
CT-3-12	not available	12.6V C.T. @ 0.2A
CT-4-12	DCT-4-12	12.6V C.T. @ 0.5A
CT-5-12	DCT-5-12	12.6V C.T. @ 1.0A
CT-6-12	DCT-6-12	12.6V C.T. @ 2.5A
CT-7-12	DCT-7-12	12.6V C.T. @ 4.0A
CT-8-12	DCT-8-12	12.6V C.T. @ 8.0A
CT-3-16	not available	16V C.T. @ 0.15A
CT-4-16	DCT-4-16	16V C.T. @ 0.4A
CT-5-16	DCT-5-16	16V C.T. @ 0.8A
CT-6-16	DCT-6-16	16V C.T. @ 2.0A
CT-7-16	DCT-7-16	16V C.T. @ 3.5A
CT-8-16	DCT-8-16	16V C.T. @ 6.25A
CT-3-20	not available	20V C.T. @ 0.12A
CT-4-20	DCT-4-20	20V C.T. @ 0.3A
CT-5-20	DCT-5-20	20V C.T. @ 0.6A
CT-6-20	DCT-6-20	20V C.T. @ 1.5A
CT-7-20	DCT-7-20	20V C.T. @ 2.8A
CT-8-20	DCT-8-20	20V C.T. @ 5.0A
CT-3-24	not available	24V C.T. @ 0.1A
CT-4-24	DCT-4-24	24V C.T. @ 0.25A
CT-5-24	DCT-5-24	24V C.T. @ 0.5A
CT-6-24	DCT-6-24	24V C.T. @ 1.25A
CT-7-24	DCT-7-24	24V C.T. @ 2.4A
CT-8-24	DCT-8-24	24V C.T. @ 4.0A
CT-3-28	not available	28V C.T. @ 0.085A
CT-4-28	DCT-4-28	28V C.T. @ 0.2A
CT-5-28	DCT-5-28	28V C.T. @ 0.42A
CT-6-28	DCT-6-28	28V C.T. @ 1.1A
CT-7-28	DCT-7-28	28V C.T. @ 2.0A
CT-8-28	DCT-8-28	28V C.T. @ 3.6A
CT-3-36	not available	36V C.T. @ 0.065A
CT-4-36	DCT-4-36	36V C.T. @ 0.17A
CT-5-36	DCT-5-36	36V C.T. @ 0.35A
CT-6-36	DCT-6-36	36V C.T. @ 0.85A
CT-7-36	DCT-7-36	36V C.T. @ 1.5A
CT-8-36	DCT-8-36	36V C.T. @ 2.8A
CT-3-48	not available	48V C.T. @ 0.05A
CT-4-48	DCT-4-48	48V C.T. @ 0.125A
CT-5-48	DCT-5-48	48V C.T. @ 0.25A
CT-6-48	DCT-6-48	48V C.T. @ 0.63A
CT-7-48	DCT-7-48	48V C.T. @ 1.2A
CT-8-48	DCT-8-48	48V C.T. @ 2.0A
CT-3-56	not available	56V C.T. @ 0.045A
CT-4-56	DCT-4-56	56V C.T. @ 0.11A
CT-5-56	DCT-5-56	56V C.T. @ 0.22A
CT-6-56	DCT-6-56	56V C.T. @ 0.54A
CT-7-56	DCT-7-56	56V C.T. @ 1.0A
CT-8-56	DCT-8-56	56V C.T. @ 1.8A
CT-3-120	not available	120V C.T. @ 0.02A
CT-4-120	DCT-4-120	120V C.T. @ 0.05A
CT-5-120	DCT-5-120	120V C.T. @ 0.1A
CT-6-120	DCT-6-120	120V C.T. @ 0.25A
CT-7-120	DCT-7-120	120V C.T. @ 0.5A
CT-8-120	DCT-8-120	120V C.T. @ 0.85A

Products Introduction

Split Bobbin Plug-in Transformers

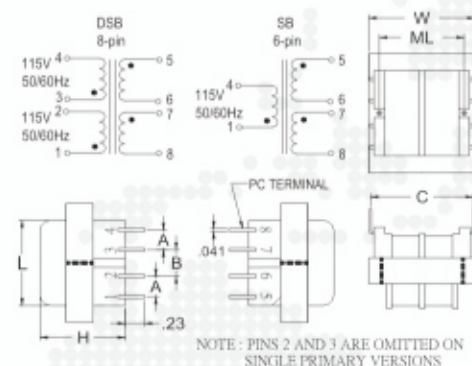
for PC board power isolation



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

FEATURES

- High (2500V) isolation ; 2500V RMS HIPOT
- No crossover contact between primary and secondary leads
- Vacuum impregnated - - withstands modern board washing systems and reduces audible noise
- Class B insulation (130°C)
- Available in single or dual primary
- Series or parallel secondaries



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	36	2.63	2.19	1.56	Note	.400	.400	1.800	1.10 lb

Notes : Size 7 has 4 mtg. holes on 2 3/16 x 13/4 centers.

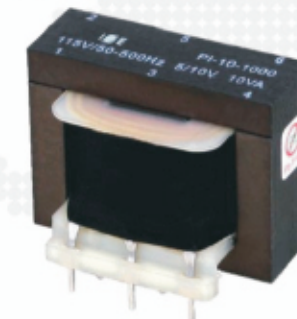
UNIT: inch

Part Number		Secondary RMS Rating	
Single 115V 6 Pin	Dual 115/230V 8 Pin	Series	Parallel
SB-2-10	DSB-2-10	10V C.T. @ 0.11A	5V @ 0.22A
SB-3-10	DSB-3-10	10V C.T. @ 0.25A	5V @ 0.5A
SB-4-10	DSB-4-10	10V C.T. @ 0.6A	5V @ 1.2A
SB-5-10	DSB-5-10	10V C.T. @ 1.2A	5V @ 2.4A
SB-6-10	DSB-6-10	10V C.T. @ 2A	5V @ 4A
SB-7-10	DSB-7-10	10V C.T. @ 3.6A	5V @ 7.2A
SB-2-12	DSB-2-12	12.6V C.T. @ 0.09A	6.3V @ 0.18A
SB-3-12	DSB-3-12	12.6V C.T. @ 0.2A	6.3V @ 0.4A
SB-4-12	DSB-4-12	12.6V C.T. @ 0.5A	6.3V @ 1.0A
SB-5-12	DSB-5-12	12.6V C.T. @ 1.0A	6.3V @ 2.0A
SB-6-12	DSB-6-12	12.6V C.T. @ 1.6A	6.3V @ 3.2A
SB-7-12	DSB-7-12	12.6V C.T. @ 2.85A	6.3V @ 5.7A
SB-2-16	DSB-2-16	16V C.T. @ 0.07A	8V @ 0.14A
SB-3-16	DSB-3-16	16V C.T. @ 0.15A	8V @ 0.3A
SB-4-16	DSB-4-16	16V C.T. @ 0.4A	8V @ 0.8A
SB-5-16	DSB-5-16	16V C.T. @ 0.8A	8V @ 1.6A
SB-6-16	DSB-6-16	16V C.T. @ 1.25A	8V @ 2.5A
SB-7-16	DSB-7-16	16V C.T. @ 2.25A	8V @ 4.5A
SB-2-20	DSB-2-20	20V C.T. @ 0.055A	10V @ 0.11A
SB-3-20	DSB-3-20	20V C.T. @ 0.12A	10V @ 0.24A
SB-4-20	DSB-4-20	20V C.T. @ 0.3A	10V @ 0.6A
SB-5-20	DSB-5-20	20V C.T. @ 0.6A	10V @ 1.2A
SB-6-20	DSB-6-20	20V C.T. @ 1A	10V @ 2A
SB-7-20	DSB-7-20	20V C.T. @ 1.8A	10V @ 3.6A
SB-2-24	DSB-2-24	24V C.T. @ 0.045A	12V @ 0.09A
SB-3-24	DSB-3-24	24V C.T. @ 0.1A	12V @ 0.2A
SB-4-24	DSB-4-24	24V C.T. @ 0.25A	12V @ 0.5A
SB-5-24	DSB-5-24	24V C.T. @ 0.5A	12V @ 1.0A
SB-6-24	DSB-6-24	24V C.T. @ 0.8A	12V @ 1.6A
SB-7-24	DSB-7-24	24V C.T. @ 1.5A	12V @ 3.0A
SB-2-28	DSB-2-28	28V C.T. @ 0.04A	14V @ 0.08A
SB-3-28	DSB-3-28	28V C.T. @ 0.085A	14V @ 0.17A
SB-4-28	DSB-4-28	28V C.T. @ 0.2A	14V @ 0.4A
SB-5-28	DSB-5-28	28V C.T. @ 0.42A	14V @ 0.84A
SB-6-28	DSB-6-28	28V C.T. @ 0.7A	14V @ 1.4A
SB-7-28	DSB-7-28	28V C.T. @ 1.3A	14V @ 2.6A
SB-2-36	DSB-2-36	36V C.T. @ 0.03A	18V @ 0.06A
SB-3-36	DSB-3-36	36V C.T. @ 0.065A	18V @ 0.13A
SB-4-36	DSB-4-36	36V C.T. @ 0.17A	18V @ 0.34A
SB-5-36	DSB-5-36	36V C.T. @ 0.35A	18V @ 0.7A
SB-6-36	DSB-6-36	36V C.T. @ 0.55A	18V @ 1.1A
SB-7-36	DSB-7-36	36V C.T. @ 1.0A	18V @ 2.0A
SB-2-48	DSB-2-48	48V C.T. @ 0.023A	24V @ 0.046A
SB-3-48	DSB-3-48	48V C.T. @ 0.05A	24V @ 0.1A
SB-4-48	DSB-4-48	48V C.T. @ 0.125A	24V @ 0.25A
SB-5-48	DSB-5-48	48V C.T. @ 0.25A	24V @ 0.5A
SB-6-48	DSB-6-48	48V C.T. @ 0.4A	24V @ 0.8A
SB-7-48	DSB-7-48	48V C.T. @ 0.75A	24V @ 1.5A
SB-2-56	DSB-2-56	56V C.T. @ 0.02A	28V @ 0.04A
SB-3-56	DSB-3-56	56V C.T. @ 0.045A	28V @ 0.09A
SB-4-56	DSB-4-56	56V C.T. @ 0.11A	28V @ 0.22A
SB-5-56	DSB-5-56	56V C.T. @ 0.22A	28V @ 0.44A
SB-6-56	DSB-6-56	56V C.T. @ 0.35A	28V @ 0.7A
SB-7-56	DSB-7-56	56V C.T. @ 0.65A	28V @ 1.3A
SB-2-120	DSB-2-120	120V C.T. @ 0.01A	60V @ 0.02A
SB-3-120	DSB-3-120	120V C.T. @ 0.02A	60V @ 0.04A
SB-4-120	DSB-4-120	120V C.T. @ 0.05A	60V @ 0.1A
SB-5-120	DSB-5-120	120V C.T. @ 0.1A	60V @ 0.2A
SB-6-120	DSB-6-120	120V C.T. @ 0.16A	60V @ 0.32A
SB-7-120	DSB-7-120	120V C.T. @ 0.3A	60V @ 0.6A

Primary Ratings : "SB" 115V 50/60Hz 6-pin
"DSB" 115/230V 50/60Hz 8-pin
(Other primary ratings available on request.)

Concentric and Split Bobbin Vertical Profile Plug-in Transformers

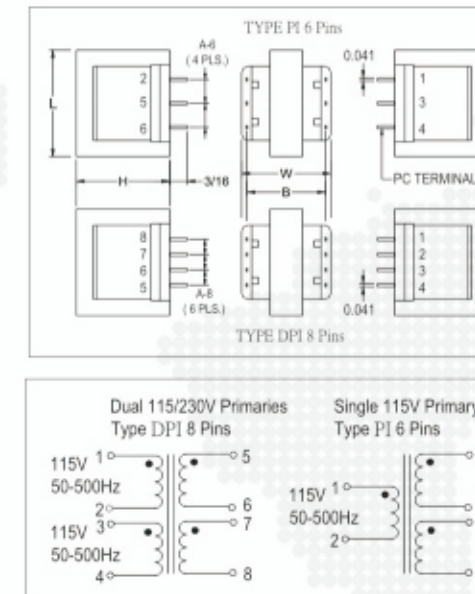
for PC board power isolation



PI SERIES CONCENTRIC VERTICAL MOUNT models provide operation frequencies from 50 to 500Hz. All parts meet RoHS compliance.

FEATURES

- Power - 1.0VA to 24VA
- Dielectric Strength - 1500V RMS HIPOT
- Vacuum impregnated
- Insulation - Class B insulation (130°C)
- Primaries - Single or dual primaries (115V or 115/230V - 50-500Hz)
- Secondaries - series or parallel Secondaries



UNIT: inch

Part Number		VA	Secondary RMS Rating	
Single 115V 6 Pin	Dual 115/230V 8 Pin		Series V.C.T @ mA	Parallel V @ mA
PI-10-90	DPI-10-90	1.0	10 @ 90	5 @ 180
PI-10-120	DPI-10-120	1.2	10 @ 120	5 @ 240
PI-10-440	DPI-10-440	4.4	10 @ 440	5 @ 880
PI-10-1000	DPI-10-1000	10	10 @ 1000	5 @ 2000
PI-10-2400	DPI-10-2400	24	10 @ 2400	5 @ 4800
PI-12-70	DPI-12-70	1.0	12.6 @ 70	6.3 @ 140
PI-12-100	DPI-12-100	1.2	12.6 @ 100	6.3 @ 200
PI-12-350	DPI-12-350	4.4	12.6 @ 350	6.3 @ 700
PI-12-800	DPI-12-800	10	12.6 @ 800	6.3 @ 1600
PI-12-2000	DPI-12-2000	24	12.6 @ 2000	6.3 @ 4000
PI-16-55	DPI-16-55	1.0	16 @ 55	8 @ 110
PI-16-75	DPI-16-75	1.2	16 @ 75	8 @ 150
PI-16-260	DPI-16-260	4.4	16 @ 260	8 @ 520
PI-16-640	DPI-16-640	10	16 @ 640	8 @ 1280
PI-16-1500	DPI-16-1500	24	16 @ 1500	8 @ 3000
PI-20-45	DPI-20-45	1.0	20 @ 45	10 @ 90
PI-20-60	DPI-20-60	1.2	20 @ 60	10 @ 120
PI-20-220	DPI-20-220	4.4	20 @ 220	10 @ 440
PI-20-500	DPI-20-500	10	20 @ 500	10 @ 1000
PI-20-1200	DPI-20-1200	24	20 @ 1200	10 @ 2400
PI-24-35	DPI-24-35	1.0	24 @ 35	12 @ 70
PI-24-50	DPI-24-50	1.2	24 @ 50	12 @ 100
PI-24-180	DPI-24-180	4.4	24 @ 180	12 @ 360
PI-24-450	DPI-24-450	10	24 @ 450	12 @ 900
PI-24-1000	DPI-24-1000	24	24 @ 1000	12 @ 2000
PI-28-30	DPI-28-30	1.0	28 @ 30	14 @ 60
PI-28-40	DPI-28-40	1.2	28 @ 40	14 @ 80
PI-28-160	DPI-28-160	4.4	28 @ 160	14 @ 320
PI-28-360	DPI-28-360	10	28 @ 360	14 @ 720
PI-28-800	DPI-28-800	24	28 @ 800	14 @ 1600
PI-34-25	DPI-34-25	1.0	34 @ 25	17 @ 50
PI-34-35	DPI-34-35	1.2	34 @ 35	17 @ 70
PI-34-125	DPI-34-125	4.4	34 @ 125	17 @ 250
PI-34-300	DPI-34-300	10	34 @ 300	17 @ 600
PI-34-700	DPI-34-700	24	34 @ 700	17 @ 1400
PI-40-20	DPI-40-20	1.0	40 @ 20	20 @ 40
PI-40-30	DPI-40-30	1.2	40 @ 30	20 @ 60
PI-40-110	DPI-40-110	4.4	40 @ 110	20 @ 220
PI-40-250	DPI-40-250	10	40 @ 250	20 @ 500
PI-40-600	DPI-40-600	24	40 @ 600	20 @ 1200
PI-56-15	DPI-56-15	1.0	56 @ 15	28 @ 30
PI-56-20	DPI-56-20	1.2	56 @ 20	28 @ 40
PI-56-80	DPI-56-80	4.4	56 @ 80	28 @ 160
PI-56-180	DPI-56-180	10	56 @ 180	28 @ 360
PI-56-420	DPI-56-420	24	56 @ 420	28 @ 840
PI-120-8	DPI-120-8	1.0	120 @ 8	60 @ 16
PI-120-10	DPI-120-10	1.2	120 @ 10	60 @ 20
PI-120-35	DPI-120-35	4.4	120 @ 35	60 @ 70
PI-120-85	DPI-120-85	10	120 @ 85	60 @ 170
PI-120-200	DPI-120-200	24	120 @ 200	60 @ 400
PI-230-4	DPI-230-4	1.0	230 @ 4	115 @ 8
PI-230-5	DPI-230-5	1.2	230 @ 5	115 @ 10
PI-230-20	DPI-230-20	4.4	230 @ 20	115 @ 40
PI-230-40	DPI-230-40	10	230 @ 40	115 @ 80
PI-230-100	DPI-230-100	24	230 @ 100	115 @ 200

Size	VA	L	W	H	A-6 (6 pin)	A-8 (8 pin)	B	Wgt
25	1.0	1.000	1.375	0.830	0.250	0.200	1.200	2.5 oz
37	1.2	1.375	1.125	1.188	0.312	0.200	1.000	3 oz
50	4.4	1.625	1.250	1.375	0.400	0.250	1.100	5 oz
62	10	1.875	1.438	1.625	0.400	0.250	1.300	9 oz
24	24	1.625	2.250	1.375	0.400	0.250	2.100	12 oz



INTER OUTSTANDING ELECTRONICS, INC.

Products Introduction

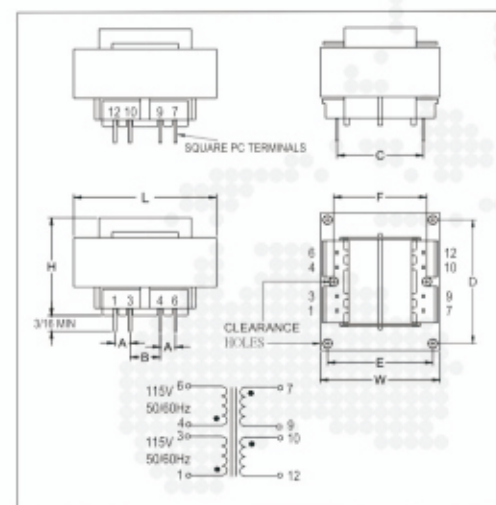
International PC Plug-in Power Transformers



All parts meet RoHS compliance.

FEATURES

- Power – 2.5VA to 56VA
- PC board plug-in mounting
- Dual bobbin; double reinforced insulation
- High (4000V) isolation
- Vacuum impregnated
- Primaries : Dual primaries (115V/230V - 50/60Hz)
- Secondaries can be series or parallel connected

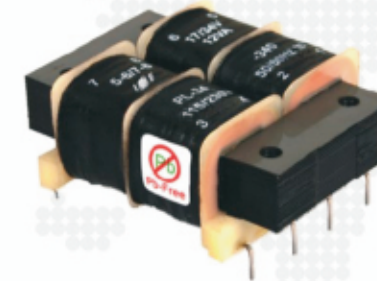


UNIT: inch

Part Number	VA	Secondary RMS Rating	
		Series	Parallel
PT-2.5-10	2.5	10V C.T. @ 0.25A	5V @ 0.5A
PT-5.0-10	5.0	10V C.T. @ 0.5A	5V @ 1.0A
PT-10-10	10	10V C.T. @ 1.0A	5V @ 2.0A
PT-20-10	20	10V C.T. @ 2.0A	5V @ 4.0A
PT-30-10	30	10V C.T. @ 3.0A	5V @ 6.0A
PT-56-10	56	10V C.T. @ 5.6A	5V @ 11.2A
PT-2.5-12	2.5	12.6V C.T. @ 0.2A	6.3V @ 0.4A
PT-5.0-12	5.0	12.6V C.T. @ 0.4A	6.3V @ 0.8A
PT-10-12	10	12.6V C.T. @ 0.8A	6.3V @ 1.6A
PT-20-12	20	12.6V C.T. @ 1.6A	6.3V @ 3.2A
PT-30-12	30	12.6V C.T. @ 2.4A	6.3V @ 4.8A
PT-56-12	56	12.6V C.T. @ 4.4A	6.3V @ 8.8A
PT-2.5-16	2.5	16V C.T. @ 0.15A	8V @ 0.3A
PT-5.0-16	5.0	16V C.T. @ 0.31A	8V @ 0.62A
PT-10-16	10	16V C.T. @ 0.62A	8V @ 1.25A
PT-20-16	20	16V C.T. @ 1.25A	8V @ 2.5A
PT-30-16	30	16V C.T. @ 1.9A	8V @ 3.8A
PT-56-16	56	16V C.T. @ 3.5A	8V @ 7.0A
PT-2.5-20	2.5	20V C.T. @ 0.12A	10V @ 0.24A
PT-5.0-20	5.0	20V C.T. @ 0.25A	10V @ 0.5A
PT-10-20	10	20V C.T. @ 0.5A	10V @ 1.0A
PT-20-20	20	20V C.T. @ 1.0A	10V @ 2.0A
PT-30-20	30	20V C.T. @ 1.5A	10V @ 3.0A
PT-56-20	56	20V C.T. @ 2.8A	10V @ 5.6A
PT-2.5-24	2.5	24V C.T. @ 0.1A	12V @ 0.2A
PT-5.0-24	5.0	24V C.T. @ 0.21A	12V @ 0.42A
PT-10-24	10	24V C.T. @ 0.42A	12V @ 0.84A
PT-20-24	20	24V C.T. @ 0.83A	12V @ 1.66A
PT-30-24	30	24V C.T. @ 1.25A	12V @ 2.5A
PT-56-24	56	24V C.T. @ 2.33A	12V @ 4.66A
PT-2.5-28	2.5	28V C.T. @ 0.09A	14V @ 0.18A
PT-5.0-28	5.0	28V C.T. @ 0.18A	14V @ 0.36A
PT-10-28	10	28V C.T. @ 0.36A	14V @ 0.72A
PT-20-28	20	28V C.T. @ 0.72A	14V @ 1.44A
PT-30-28	30	28V C.T. @ 1.06A	14V @ 2.12A
PT-56-28	56	28V C.T. @ 2.0A	14V @ 4.0A
PT-2.5-36	2.5	36V C.T. @ 0.07A	18V @ 0.14A
PT-5.0-36	5.0	36V C.T. @ 0.14A	18V @ 0.28A
PT-10-36	10	36V C.T. @ 0.28A	18V @ 0.56A
PT-20-36	20	36V C.T. @ 0.56A	18V @ 1.12A
PT-30-36	30	36V C.T. @ 0.82A	18V @ 1.64A
PT-56-36	56	36V C.T. @ 1.56A	18V @ 3.12A

VA	Dimensions					
	L	W	H	A	B	C
2.5	1.625	1.312	1.125	.200	.250	1.000
5.0	1.625	1.312	1.375	.200	.400	1.000
10	1.875	1.562	1.375	.200	.400	1.140
20	2.250	1.875	1.625	.400	.400	1.460
30	2.625	2.187	1.562	.550	.275	1.680
56	3.000	2.500	1.812	.600	.300	1.900
VA	D	E	F	PIN DIM	MTG	Wgt
2.5	---	---	1.062	.025 SQ	#4	0.25 lbs
5.0	---	---	1.062	.025 SQ	#4	0.37 lbs
10	---	---	1.250	.038 SQ	#4	0.53 lbs
20	---	---	1.500	.038 SQ	#4	0.90 lbs
30	2.18	1.75	---	.045 SQ	#6	1.15 lbs
56	2.50	2.00	---	.045 SQ	#6	1.70 lbs

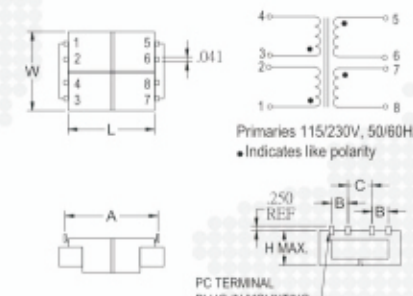
Low Profile Plug-in Transformers for limited-space PC board applications



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 semi-conductor control and instrumentation and for use in single, dual, or reference dc supplies and isolated control circuits. Available in five sizes. All parts meet RoHS compliance.

FEATURES

- Low height profile
- 1500V RMS HIPOT
- PRIMARY : dual primaries (115V/230V) 50/60Hz
- SECONDARY : Series or parallel
- Vacuum impregnated
- Baked resin - - provides fully cured and environmentally
- Sizes 2, 6, and 12 are available as encapsulated and hermetically sealed (request drawings).



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

UNIT: inch

Part Number	VA	Secondary RMS Rating	
		Series	Parallel
PL-10-250	2	10V C.T. @ 250mA	5V @ 500mA
PL-10-600	6	10V C.T. @ 600mA	5V @ 1.20A
PL-10-1200	12	10V C.T. @ 1.20A	5V @ 2.40A
PL-10-2400	24	10V C.T. @ 2.40A	5V @ 4.80A
PL-10-4800	48	10V C.T. @ 4.80A	5V @ 9.60A
PL-12-200	2	12.6V C.T. @ 200mA	6.3V @ 400mA
PL-12-450	6	12.6V C.T. @ 450mA	6.3V @ 900mA
PL-12-900	12	12.6V C.T. @ 900mA	6.3V @ 1.80A
PL-12-1900	24	12.6V C.T. @ 1.90A	6.3V @ 3.80A
PL-12-3800	48	12.6V C.T. @ 3.80A	6.3V @ 7.60A
PL-16-150	2	16V C.T. @ 150mA	8V @ 300mA
PL-16-350	6	16V C.T. @ 350mA	8V @ 700mA
PL-16-700	12	16V C.T. @ 700mA	8V @ 1.40A
PL-16-1500	24	16V C.T. @ 1.50A	8V @ 3.00A
PL-16-3000	48	16V C.T. @ 3.00A	8V @ 6.00A
PL-18-135	2	18V C.T. @ 135mA	9V @ 270mA
PL-18-325	6	18V C.T. @ 325mA	9V @ 650mA
PL-18-650	12	18V C.T. @ 650mA	9V @ 1.30A
PL-18-1300	24	18V C.T. @ 1.30A	9V @ 2.60A
PL-18-2600	48	18V C.T. @ 2.60A	9V @ 5.20A
PL-20-125	2	20V C.T. @ 125mA	10V @ 250mA
PL-20-300	6	20V C.T. @ 300mA	10V @ 600mA
PL-20-600	12	20V C.T. @ 600mA	10V @ 1.20A
PL-20-1200	24	20V C.T. @ 1.20A	10V @ 2.40A
PL-20-2400	48	20V C.T. @ 2.40A	10V @ 4.80A
PL-24-100	2	24V C.T. @ 100mA	12V @ 200mA
PL-24-250	6	24V C.T. @ 250mA	12V @ 500mA
PL-24-500	12	24V C.T. @ 500mA	12V @ 1.00A
PL-24-1000	24	24V C.T. @ 1.00A	12V @ 2.00A
PL-24-2000	48	24V C.T. @ 2.00A	12V @ 4.00A
PL-28-90	2	28V C.T. @ 90mA	14V @ 180mA
PL-28-215	6	28V C.T. @ 215mA	14V @ 430mA
PL-28-430	12	28V C.T. @ 430mA	14V @ 860mA
PL-28-850	24	28V C.T. @ 850mA	14V @ 1.70A
PL-28-1700	48	28V C.T. @ 1.70A	14V @ 3.40A
PL-30-85	2	30V C.T. @ 85mA	15V @ 170mA
PL-30-200	6	30V C.T. @ 200mA	15V @ 400mA
PL-30-400	12	30V C.T. @ 400mA	15V @ 800mA
PL-30-800	24	30V C.T. @ 800mA	15V @ 1.60A
PL-30-1600	48	30V C.T. @ 1.60A	15V @ 3.20A
PL-34-75	2	34V C.T. @ 75mA	17V @ 150mA
PL-34-170	6	34V C.T. @ 170mA	17V @ 340mA
PL-34-340	12	34V C.T. @ 340mA	17V @ 680mA
PL-34-700	24	34V C.T. @ 700mA	17V @ 1.40A
PL-34-1400	48	34V C.T. @ 1.40A	17V @ 2.80A
PL-40-60	2	40V C.T. @ 60mA	20V @ 120mA
PL-40-150	6	40V C.T. @ 150mA	20V @ 300mA
PL-40-300	12	40V C.T. @ 300mA	20V @ 600mA
PL-40-600	24	40V C.T. @ 600mA	20V @ 1.20A
PL-40-1200	48	40V C.T. @ 1.20A	20V @ 2.40A
PL-56-45	2	56V C.T. @ 45mA	28V @ 90mA
PL-56-100	6	56V C.T. @ 100mA	28V @ 200mA
PL-56-200	12	56V C.T. @ 200mA	28V @ 400mA
PL-56-425	24	56V C.T. @ 425mA	28V @ 850mA
PL-56-850	48	56V C.T. @ 850mA	28V @ 1.70A
PL-88-28	2	88V C.T. @ 28mA	44V @ 56mA
PL-88-65	6	88V C.T. @ 65mA	44V @ 130mA
PL-88-130	12	88V C.T. @ 130mA	44V @ 260mA
PL-120-20	2	120V C.T. @ 20mA	60V @ 40mA
PL-120-50	6	120V C.T. @ 50mA	60V @ 100mA
PL-120-100	12	120V C.T. @ 100mA	60V @ 200mA
PL-230-10	2	230V C.T. @ 10mA	115V @ 20mA
PL-230-25	6	230V C.T. @ 25mA	115V @ 50mA
PL-230-50	12	230V C.T. @ 50mA	115V @ 100mA



INTER OUTSTANDING ELECTRONICS, INC.

Products Introduction

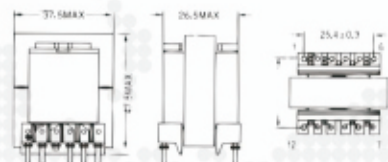
5-2、High Frequency Transformers

ERL-35

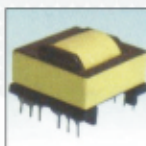


Switching Power
Main Transformers
And Chokes, Etc

1. 20KHz~300KHz
2. 100W~500W
3. -25°C~105°C
4. Insulation Class: B(130°C)
5. Meet UL VDE & IEC Safety Standard

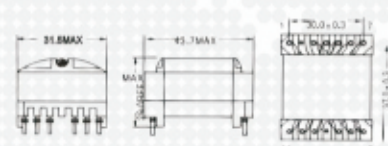


ERL-35H



Switching Power
Main Transformers
And Chokes, Etc

1. 20KHz~300KHz
2. 100W~500W
3. -25°C~105°C
4. Insulation Class: B(130°C)
5. Meet UL VDE & IEC Safety Standard

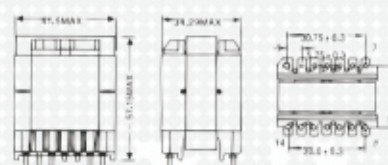


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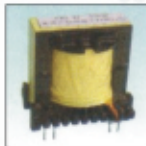


Switching Power
Main Transformers
And Chokes, Etc

1. 20KHz~300KHz
2. 150W~600W
3. -25°C~105°C
4. Insulation Class: B(130°C)
5. Meet UL VDE & IEC Safety Standard

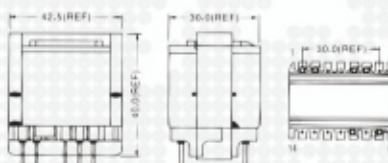


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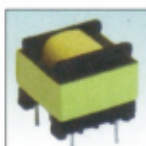


Switching Power
Main Transformers
And Chokes, Etc

1. 20KHz~300KHz
2. 180W~750W
3. -25°C~105°C
4. Insulation Class: B(130°C)
5. Meet UL VDE & IEC Safety Standard

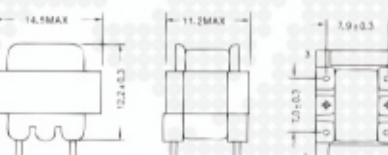


EI-13H



1. Power Converter Transform-
ers And Chokes
2. Pulse Tr ansformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 1W~5W
3. -25°C~105°C
4. Insulation Class: B(130°C)

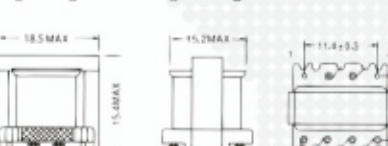


EI-16



1. Power Converter Transform-
ers And Chokes
2. Pulse Tr ansformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 1W~10W
3. -25°C~105°C
4. Insulation Class: B(130°C)

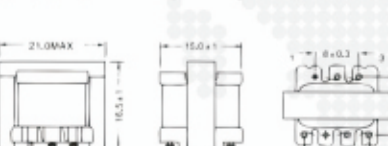


EI-19



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 3W~15W
3. -25°C~105°C
4. Insulation Class: B(130°C)



EI-25



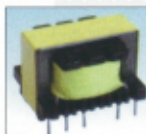
1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 3W~60W
3. -25°C~105°C
4. Insulation Class: B(130°C)



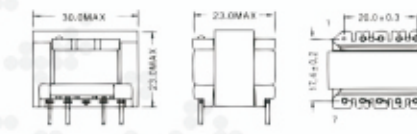
UNIT : mm

EI-28

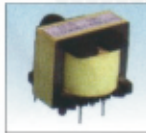


1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 25W~100W
3. -25°C~105°C
4. Insulation Class: B(130°C)

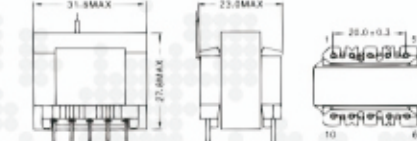


EI-30



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 30W~150W
3. -25°C~105°C
4. Insulation Class: B(130°C)

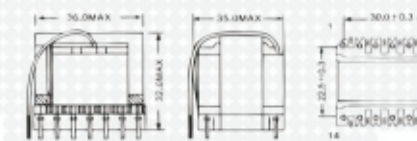


EI-33



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 40W~200W
3. -25°C~105°C
4. Insulation Class: B(130°C)

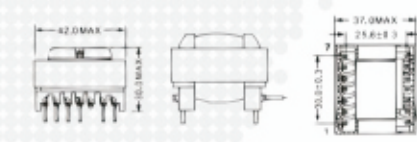


EI-40H



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 80W~200W
3. -25°C~105°C
4. Insulation Class: B(130°C)

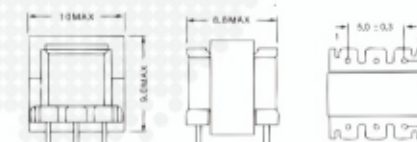


EE-8.3



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive
Transformers, Chokes, Indu-
ctors And Filters For Commu-
nication Equipment, Etc

1. 20KHz~300KHz
2. 0.7W~3W
3. -25°C~105°C
4. Insulation Class: B(130°C)

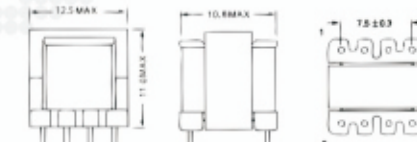


EE-10



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive Tr-
ansformers, Chokes, Inductors
And Filters For Communication
Equipment, Etc

1. 20KHz~300KHz
2. 0.8W~4W
3. -25°C~105°C
4. Insulation Class: B(130°C)

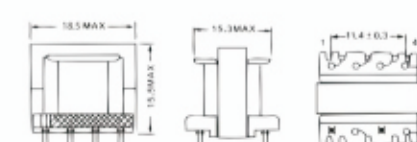


EE-16

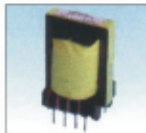


1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive Tr-
ansformers, Chokes, Inductors
And Filters For Communication
Equipment, Etc

1. 20KHz~300KHz
2. 2W~10W
3. -25°C~105°C
4. Insulation Class: B(130°C)

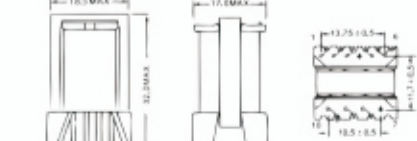


EEL-16



1. Power Converter Transform-
ers And Chokes
2. Pulse Transformers, Drive Tr-
ansformers, Chokes, Inductors
And Filters For Communication
Equipment, Etc

1. 20KHz~300KHz
2. 3W~15W
3. -25°C~105°C
4. Insulation Class: B(130°C)



UNIT : mm



INTER OUTSTANDING ELECTRONICS, INC.

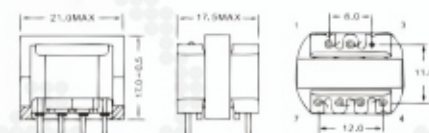
Products Introduction

EE-19



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 3W~15W
3. -25°C~105°C
4. Insulation Class: B(130°C)



EEL-19H

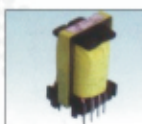


1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 3W~15W
3. -25°C~105°C
4. Insulation Class: B(130°C)

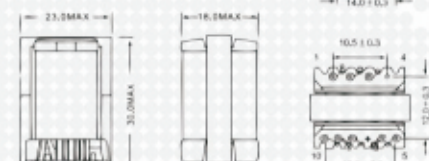


EEL-19



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 5W~25W
3. -25°C~105°C
4. Insulation Class: B(130°C)



EE-20H



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 4W~20W
3. -25°C~105°C
4. Insulation Class: B(130°C)

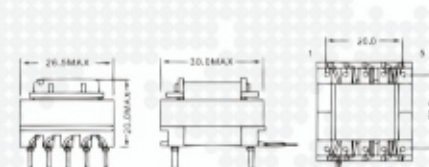


EE-25H

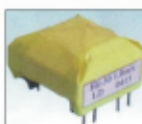


1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 15W~60W
3. -25°C~105°C
4. Insulation Class: B(130°C)



EE-30H



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 30W~150W
3. -25°C~105°C
4. Insulation Class: B(130°C)



EE-35

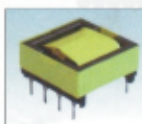


1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 50W~250W
3. -25°C~105°C
4. Insulation Class: B(130°C)

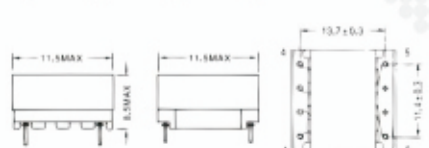


EFD-20H



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 1.5W~6W
3. -25°C~105°C
4. Insulation Class: B(130°C)



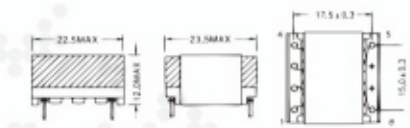
UNIT: mm

EFD-25H



1. Power Converter Transformers And Chokes
2. Pulse Transformers, Drive Transformers, Chokes, Inductors And Filters For Communication Equipment, Etc

1. 20KHz~300KHz
2. 2.5W~10W
3. -25°C~105°C
4. Insulation Class: B(130°C)



ETD-39H



1. Power Converter Main Transformers And Chokes, Etc

1. 20KHz~300KHz
2. 250W~1000W
3. -25°C~105°C
4. Insulation Class: B(130°C)

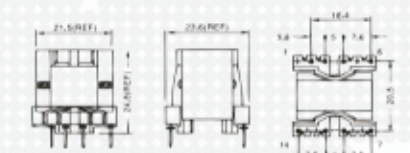


PQ20/20



1. Power Converter & Charger Main Transformers And Chokes, Etc

1. 20KHz ~ 500KHz
2. 60W ~ 220W
3. -25°C ~ 105°C
4. Insulation Class: B(130°C)

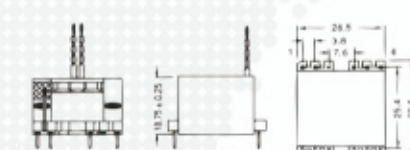


PQ26/20



1. Power Converter & Charger Main Transformers And Chokes, Etc

1. 20KHz ~ 500KHz
2. 100W ~ 380W
3. -25°C ~ 105°C
4. Insulation Class: B(130°C)

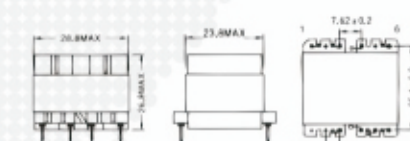


PQ26/25



1. Power Converter & Charger Main Transformers And Chokes, Etc

1. 20KHz ~ 500KHz
2. 120W ~ 420W
3. -25°C ~ 105°C
4. Insulation Class: B(130°C)

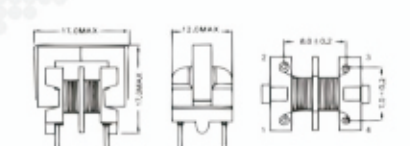


UU-9.8



1. Power Converter & Charger Line Filters, Etc

1. 0.2A/10mH MIN/2.0 MAX
0.3A/5mH MIN/1.0 MAX
0.5A/2mH MIN/0.5 MAX
2. Operating Temperature Range: -10°C ~ 85°C
3. Insulation Class: A(105°C)



UU-10.5



1. Power Converter & Charger Line Filters, Etc

1. 0.2A/12mH MIN/1.5 MAX
0.5A/5mH MIN/0.7 MAX
1A/2mH MIN/0.3 MAX
2. Operating Temperature Range: -10°C ~ 85°C
3. Insulation Class: A(105°C)

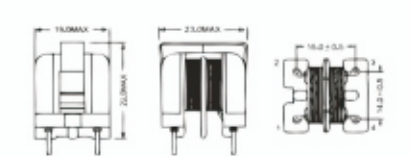


UU-15.7



1. Power Converter & Charger Line Filters, Etc

1. 0.3A/40mH MIN/1.8 MAX
0.8A/8mH MIN/0.6 MAX
1.8A/3mH MIN/0.2 MAX
2. Operating Temperature Range: -10°C ~ 85°C
3. Insulation Class: A(105°C)



UNIT: mm



INTER OUTSTANDING ELECTRONICS, INC.

Products Introduction

5-3、Inductors COMMON MODE TOROIDS



FEATURES:

- Low Profile series common mode toroids meets critical filtering requirements where installation profiles are at a premium.
- UL94-V0 materials used.
- Toroids meet IEC, VDE and CSA specifications

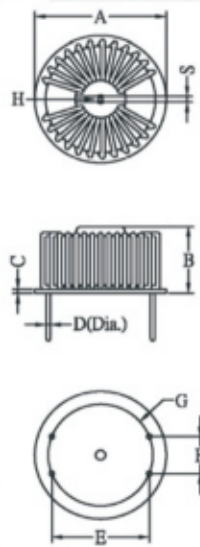
OPTIONS:

- Bulk packaging is Standard
- Custom available
- Tolerance: 10% is standard.

COMMON APPLICATIONS:

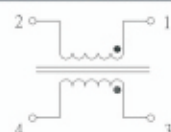
- Power Line Filters
- Suppress EMI in Switch Mode Supplies
- Linear Power Supply Filters

PHYSICAL CHARACTERISTICS



Part No.	A max	B max	C typ.	D (dia)	E	F typ	G (dia)	S Typ	H dia.
100-105	25.65	15.95	0.81	see table	20.88	7.62	22.10	3.05	N/A
200-205	31.09	14.91	0.81	see table	27.18	8.38	27.94	3.05	N/A
300-305	43.43	22.15	0.81	see table	35.92	12.7	38.10	3.05	N/A
400-405	58.93	27.23	0.81	see table	52.32	12.7	53.85	3.05	N/A

ELECTRONICAL SCHEMATIC



STANDARD SPECIFICATIONS

Part number	RATED CURRENT AMPS (RMS)	INDUCTANCE 10KHz (mH)	MAX.DCR (Ω)	LEAKAGE INDUCTANCE (uH)	"D" Dia. (IN)
100	1.0	2.7	0.070	19	0.51
101	1.0	4.7	0.100	35	0.51
102	1.0	10.1	0.120	62	0.51
103	2.0	1.0	0.026	7.5	0.64
104	2.0	3.9	0.050	27	0.64
105	2.0	6.8	0.068	44	0.64

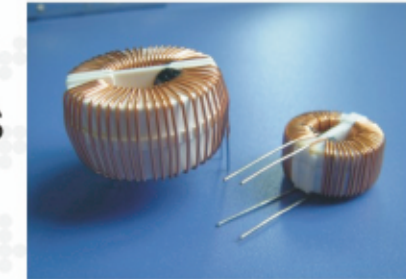
Part number	RATED CURRENT AMPS (RMS)	INDUCTANCE 10KHz (mH)	MAX.DCR (Ω)	LEAKAGE INDUCTANCE (uH)	"D" Dia. (IN)
200	2.0	4.7	0.084	56	0.64
201	2.0	8.2	0.090	59	0.64
202	2.0	15.0	0.110	98	0.64
203	4.0	1.2	0.036	17	0.74
204	4.0	2.2	0.040	18	0.74
205	4.0	3.9	0.054	22	0.74

Part number	RATED CURRENT AMPS (RMS)	INDUCTANCE 10KHz (mH)	MAX.DCR (Ω)	LEAKAGE INDUCTANCE (uH)	"D" Dia. (IN)
300	2.0	18.0	0.190	209	0.64
301	2.0	27.0	0.250	375	0.64
302	2.0	56.0	0.340	604	0.64
303	4.0	8.2	0.100	96	0.74
304	4.0	15.0	0.140	179	0.74
305	6.0	6.8	0.080	7	0.81

Part number	RATED CURRENT AMPS (RMS)	INDUCTANCE 10KHz (mH)	MAX.DCR (Ω)	LEAKAGE INDUCTANCE (uH)	"D" Dia. (IN)
400	2.0	39.0	0.320	552	0.64
401	2.0	62.0	0.390	440	0.64
402	2.0	120.0	0.490	925	0.64
403	4.0	18.0	0.170	252	0.74
404	4.0	33.0	0.230	486	0.74
405	6.0	15.0	0.120	193	0.81

ALL dimensions in mm

THROUGH-HOLE TOROIDAL COMMON MODE CHOKES



FEATURES:

- 0.3A to 10A ratings
- 0.7mH to 100mH dual chokes
- Excellent Mechanical Strength
- 100KHz to 3MHz common mode resonance
- High Reliability and variant PCB-mount housing
- Low resistance and temperature rise

OPTIONS:

- Bulk packaging is standard
- Custom design available

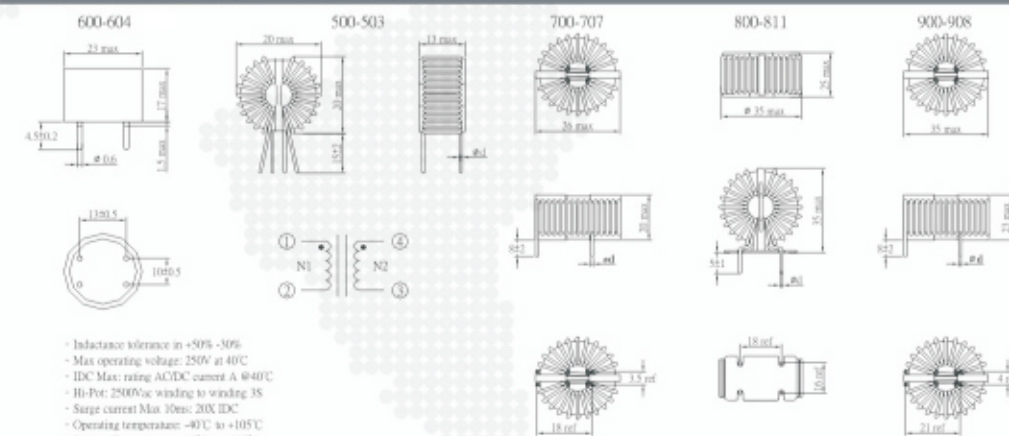
COMMON APPLICATIONS:

- DC/DC, AC/DC line noise suppression
- Communication System
- Automotive Systems
- LCD/PDPT elevations
- Computer Peripheral Equipment it accord with the standards of FCC VCCI CISPR PTZ etc.
- Eliminating of electromagnetic noise of power and signal circuit

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance L (mH)	DCR mΩ Max	IDC MAX A	Φd (mm)	Part Number	Inductance L (mH)	DCR mΩ Max	IDC MAX A	Φd (mm)
500	4.0	200	1.5	0.51	802	10.0	180	3.5	0.80
501	2.2	100	1.5	0.51	803	8.0	110	3.5	0.80
502	1.0	120	1.5	0.51	804	5.3	100	4.5	0.80
503	1.0	75	1.0	0.41	805	4.5	50	4.0	1.00
600	1.0	120	2.5	0.60	806	4.0	40	8.0	1.10
601	0.8	120	2.5	0.60	807	3.0	80	6.0	0.90
602	0.6	110	2.5	0.60	808	2.3	50	5.0	0.80
603	0.4	100	2.5	0.60	809	1.0	20	10.0	1.30
604	0.2	80	2.5	0.60	810	0.7	8	12.0	1.50
700	6.0	160	1.5	0.51	811	0.2	6	18.0	1.80
701	4.5	150	2.0	0.53	900	8.5	110	3.0	0.80
702	2.3	100	3.0	0.69	901	5.0	90	5.0	0.80
703	2.0	50	4.0	0.75	902	2.3	50	3.3	0.80
704	1.2	60	5.0	0.80	903	2.0	22	6.5	1.00
705	1.0	25	6.0	0.90	904	1.2	21	10.0	1.30
706	0.6	10	9.0	1.00	905	0.5	5	18.0	1.80
707	0.3	8	10.0	1.20	906	10.0	280	2.0	0.53
800	30.0	220	3.0	0.80	907	7.0	230	2.5	0.60
801	14.0	220	3.5	0.80	908	3.0	100	4.0	0.70

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS



- Inductance tolerance in +50% -50%
- Max operating voltage: 250V at 40°C
- IDC Max rating AC/DC current A @40°C
- Hi-Pot: 2500VAC winding to winding 3S
- Surge current Max 10ms: 20X IDC
- Operating temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Resistance to soldering heat: 260°C for 10 seconds
- Marking: Part number and date code

Note: All specifications subject to change without notice
ALL dimensions in mm



INTER OUTSTANDING ELECTRONICS, INC.

Products Introduction

THROUGH-HOLE TOROIDAL COMMON MODE CHOKES



FEATURES:

- 0.3A to 10A ratings
- 0.7mH to 100mH dual chokes
- Excellent Mechanical Strength
- 100KHz to 3MHz common mode resonance
- High Reliability and variant PCB-mount housing
- Low resistance and temperature rise

OPTIONS:

- Bulk packaging is standard
- Custom design available

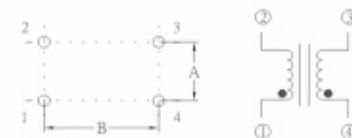
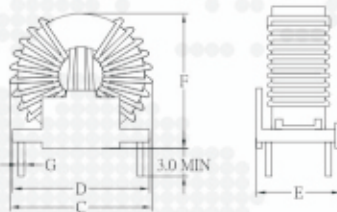
COMMON APPLICATIONS:

- DC/DC, AC/DC line noise suppression
- Communication System
- Automotive Systems
- LCD/PDPT elevators
- Computer Peripheral Equipment it accord with the standards of FCC VCCI CISPR ITZ etc.
- Eliminating of electromagnetic noise of power and signal circuit

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (mH Min)	Rated RMS Current Amps	DCR each winding (Ohms Max)	Leakage (uH) type	Part Number	Inductance (mH Min)	Rated RMS Current Amps	DCR each winding (Ohms Max)	Leakage (uH) type
1000	16.0	1.5	0.320	180	1200	55.0	1.8	1.000	550
1001	10.0	2.2	0.240	130	1201	33.0	2.0	0.730	300
1002	8.0	2.5	0.120	90	1202	22.0	3.2	0.352	280
1003	4.0	3.5	0.040	45	1203	15.0	4.2	0.132	150
1004	3.0	6.0	0.030	35	1204	12.0	6.8	0.098	95
1005	2.0	9.0	0.020	25	1205	5.0	12.0	0.035	50
1006	1.0	15.0	0.010	12	1206	3.0	15.0	0.009	20
1100	16.0	2.2	0.400	180	1300	120.0	1.5	1.150	900
1101	10.0	3.0	0.350	130	1301	72.0	2.6	0.500	600
1102	8.0	3.5	0.143	85	1302	33.0	4.2	0.124	450
1103	4.0	5.4	0.105	45	1303	22.0	6.0	0.117	180
1104	3.0	6.5	0.054	35	1304	15.0	9.0	0.060	180
1105	2.0	8.7	0.020	25	1305	10.0	15.0	0.033	120
1106	1.2	15.0	0.010	12	1306	6.0	18.0	0.028	100

TECHNICAL INFORMATION & PHYSICAL CHARACTERISTICS

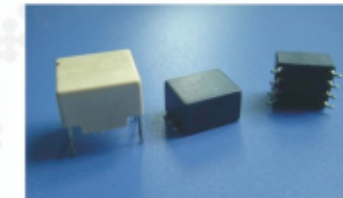


DIMENSIONS IN: mm

Part number	A	B	C	D	E	F	G
1000-1006	10.16	20.32	34.3	25.4	17.78	31.52	1.2
1100-1106	15.24	22.86	36.83	27.94	22.86	33.5	1.2
1200-1206	17.78	30.48	44.45	35.56	25.4	44.7	1.2
1300-1306	22.86	38.1	52.07	43.18	30.48	58.0	1.2

- Inductance tolerance in $\pm 50\%$ -30%
- Max operating voltage: 250V at 40°C
- IDC Max: rating AC/DC current A @40°C
- Hi-Pot: 2500V ac winding to winding 3S
- Surge current Max 10ms: 20X IDC
- Operating temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Resistance to soldering heat: 260°C for 10 seconds
- Marking: Part number and date code
- Note: All specifications subject to change without notice

SURFACE-MOUNT TOROIDAL COMMON MODE CHOKES



FEATURES:

- SMD Housing
- High Frequency Design
- Excellent Mechanical Strength
- Excellent Solderability
- High Reliability
- Low Profile

OPTIONS:

- Packaging: Tape & Reel is standard (Qty: 2000pcs)
- Bulk packaging available for smaller quantities
- Tolerance: 10% and 5% is standard, tighter tolerances available

COMMON APPLICATIONS:

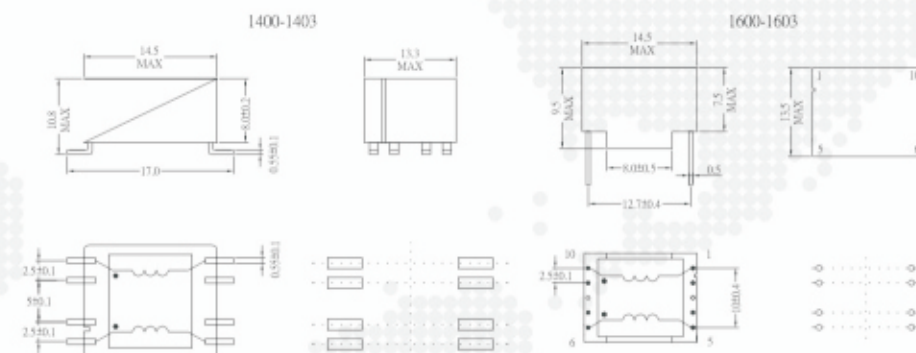
- VCRs
- Video Cameras
- Communication System
- Automotive Systems
- Liquid Crystal Televisions
- Hard Disk Drives
- Network Systems
- Computer Peripheral Equipment

ELECTRICAL CHARACTERISTICS:

Part Number	L (mH) MIN	Test Freq. KHz	DCR Ω Max	IDC A MAX	Part Number	L (mH) MIN	Test Freq. KHz	DCR Ω Max	IDC A MAX
1400	12.0	1.0	1.15	0.3	1600	12.0	1.0	1.15	0.3
1401	4.40	1.0	0.43	0.6	1601	4.4	1.0	0.43	0.6
1402	3.00	1.0	0.23	1.0	1602	3.0	1.0	0.23	1.0
1403	1.10	1.0	0.07	2.0	1603	1.1	1.0	0.07	2.0
1500	1.00	1.0	0.82	0.5					
1501	0.50	1.0	0.45	0.6					
1502	0.22	1.0	0.22	0.8					
1503	0.15	1.0	0.15	1.0					

TECHNICAL INFORMATION:

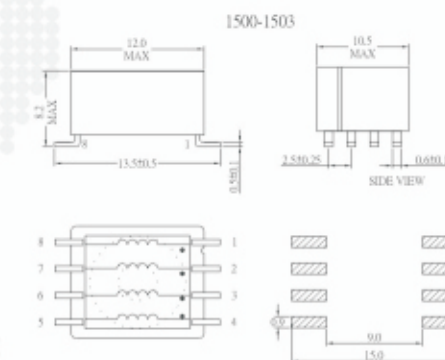
PHYSICAL CHARACTERISTICS:



DIMENSIONS: mm

Unless otherwise specified all tolerances are ± 0.25

- IDC Max: Determined when superimposed
- Operating temperature: -40°C to +105°C
- Storage Temperature: -40°C to +105°C
- Solder methods: Vapor Phase, Infrared Reflow
- Resistance to soldering heat: 260°C for 10 seconds
- Solvent resistance: Conforms to MIL-STD-202E
- Marking: Inductance & Tolerance
- Note: All specifications subject to change without notice

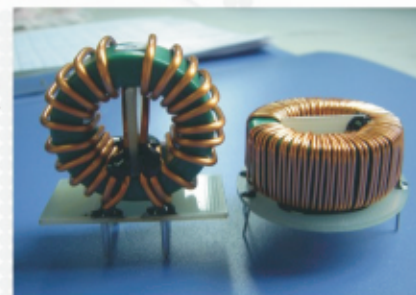


Products Introduction

Model No.: Common Mode Inductor/choke

Features & Application:

- * Separated windings for minimum interwinding capacitance
- * Single layer windings for highest common mode impedance over the widest frequency range
- * OR wound on nylon casing to protect windings
- * Spacer provides 1-3mm creepage distance for UL, CSA, IEC compliance
- * All materials used are UL94-V0 recognized
- * Operating temperature: -40°C to 105°C, Suitable for 50Hz to 500KHz
- * Available in both vertical or horizontal mount
- * Application includes power line filtering, EMI/RFI for switch mode power supplies
- * Available in vertical header mount for ease in PCB assembly
- * Easy FR-4 board mounting Good vibration resistance



Electrical characteristics

Header Mounted Toroidal Common Mode Line Chokes

Part No. #TOD-L(A)	Inductance	Max D.C. Resistance	Current Rating	Mounting	Dimension(mm) A*B*C*D*E
1700	0.780mH	2.9 milli-ohm	13.0 A	Horizontal	38*38*19*32*10
1701	0.425mH	4.26milli-ohm	8.0 A	vertical	32*30*21*11*15
1702	0.580mH	10.0 milli-ohm	13.0 A	vertical	38*38*18*12*12
1703	1.000mH	0.02 ohm	8.0 A	vertical	30*28*13*10*8
1704	1.000mH	15.3 milli-ohm	3.2 A	vertical	26*26*17*10*12
1705	1.500mH	18.0 milli-ohm	3.2 A	vertical	26*26*18*10*12
1706	1.800mH	0.05 ohm	5.0 A	Horizontal	26*26*18*22*8
1707	2.200mH	0.04 ohm	5.0 A	vertical	26*26*19*10*12
1708	3.500mH	80.0 milli-ohm	1.5 A	Horizontal	30*32*16*22*8
1709	3.700mH	0.07 ohm	4.0 A	vertical	30*32*17*10*12
1710	7.200mH	93.0 milli-ohm	2.5 A	Horizontal	38*40*18*32*10
1711	11.00mH	184.0 milli-ohm	1.5 A	vertical	40*40*19*12*12

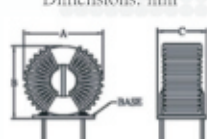
Low profile Small Size Common Mode Choke

Part No. #TOD-L(A)	Inductance	Max D.C. Resistance	DC Current Rating	Mounting	Dimension(mm) A*B*C*D*E
1800	1.180mH	12.5 milli-ohms	7.5 Amps	Horizontal	26*28*20*22*8
1801	65.00uH	0.9 milli-ohms	23.5 Amps	vertical	26*26*18*10*12
1802	100.00uH	1.3 milli-ohms	19.0 Amps	vertical	28*26*18*10*12
1803	180.00uH	2.5 milli-ohms	15.0 Amps	vertical	26*26*20*11*15
1804	470.00uH	4.0 milli-ohms	12.0 Amps	vertical	28*26*18*10*12
1805	880.00uH	6.5 milli-ohms	9.0 Amps	Horizontal	28*30*20*22*8

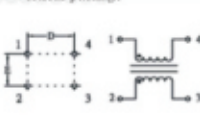
High Current Common Mode Line Chokes

Part No. #TOD-L(A)	Inductance	Max D.C. Resistance	Rating Current	Mounting	Dimension(mm) A*B*C*D*E
1900	0.100mH	3.0 milli-ohms	30.0 Amps	Horizontal	38*40*18*32*10
1901	0.100mH	5.0 milli-ohms	30.0 Amps	vertical	36*36*15*12*12
1902	0.150mH	3.4 milli-ohms	20.0 Amps	Horizontal	36*36*16*32*10
1903	0.150mH	3.5 milli-ohms	20.0 Amps	vertical	38*38*18*12*12
1904	0.150mH	3.6 milli-ohms	30.0 Amps	vertical	38*38*19*12*12
1905	0.200mH	3.7 milli-ohms	15.0 Amps	Horizontal	30*28*15*22*8
1906	0.200mH	3.8 milli-ohms	18.0 Amps	Horizontal	36*36*16*32*10
1907	0.200mH	3.9 milli-ohms	15.0 Amps	vertical	38*38*18*12*12
1908	0.200mH	3.10 milli-ohms	18.0 Amps	vertical	30*28*15*10*12
1909	0.300mH	3.11 milli-ohms	15.0 Amps	Horizontal	30*32*18*22*8
1910	0.300mH	3.12 milli-ohms	15.0 Amps	vertical	30*28*17*10*12
1911	0.600mH	3.13 milli-ohms	9.0 Amps	Horizontal	30*30*18*22*8
1912	0.600mH	3.14 milli-ohms	9.0 Amps	vertical	30*28*19*10*12

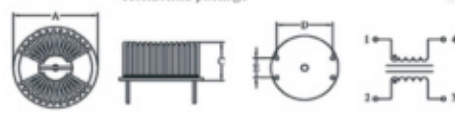
Dimensions: mm



Vertical package



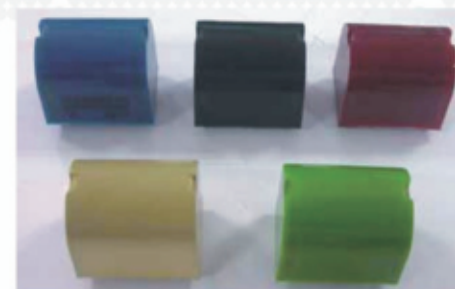
Horizontal package



Notes:

- 1) Inductance is minimum per winding tested at 20KHz 1V.
- 2) Rdc is maximum per winding.
- 3) SRF is minimum for each winding.
- 4) Parts are designed for 40°C MAX temperature rise at the rated current Specification might be changed due to under developing and improving.

5-4、Ignition coils



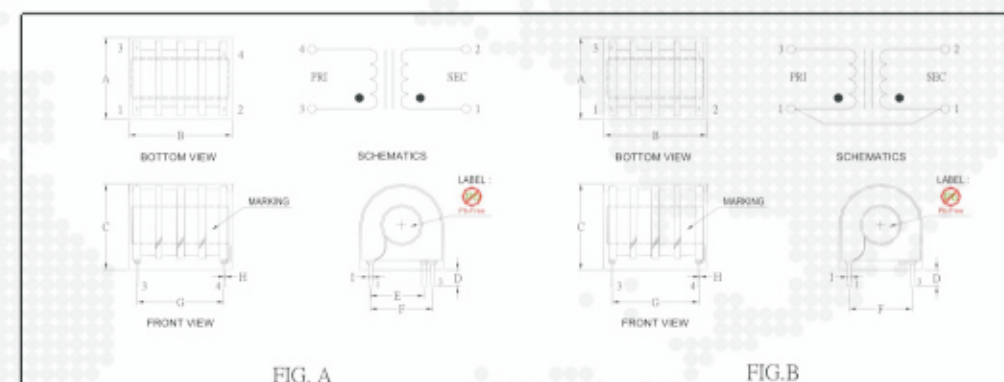
IGNITION COIL SERIES



ELECTRICAL CHARACTERISTICS:

Part Number	Primary Inductance L (uH) @20KHz	Secondary Inductance L (mH) @20KHz	Primary DCR mΩ Max AT 25°C	Secondary DCR Ω Max AT 25°C
IG1023001BK	58.0	144.0	212.4	312.4
IG1023002RD	58.0	144.0	212.4	312.4
IG1023003BU	11.0	144.0	96.0	312.4
IG1023004GN	22.9	290.0	126.0	444.4

- Inductance tolerance in $\pm 15\%$
- Hi-Pot: 3000VAC Primary to Secondary 1S
- Operating temperature: -40°C to +85°C
- Storage Temperature: -40°C to +85°C
- All dimensions are reference unless otherwise specified.
- Materials: All materials to be RoHS compliant



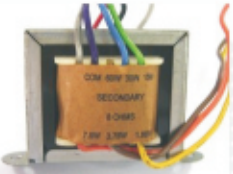
DIMENSION:

(UNIT: mm)

Part Number	A MAX	B MAX	C MAX	D ± 0.5	E ± 0.25	F ± 0.25	G ± 0.25	H ± 0.15	I ± 0.15	FIG.
IG1023001BK	24.13	29.71	25.40	3.5	---	16.51	22.86	0.50	1.10	B
IG1023002RD	24.13	29.71	25.40	3.5	13.97	16.51	22.86	0.50	1.10	A
IG1023003BU	24.13	29.71	25.40	3.5	13.97	16.51	22.86	0.50	1.10	A
IG1023004GN	24.13	29.71	25.40	3.5	13.97	16.51	22.86	0.50	1.10	A

Products Introduction

5-5、Audio Transformers



PART NO: IOE66-7025/60W

1. PRI. IMPEDANCE: INPUT 3-2 (WHT-RED) AT 1KHz (SEC. @ 8 OHMS)

60W	GRY-VIO	11 OHMS ±10%
30W	GRY-BLU	22 OHMS ±10%
15W	GRY-GRN	42 OHMS ±10%
7.5W	GRY-ORG	70 OHMS ±10%
3.75W	GRY-BRN	107 OHMS ±10%
1.88W	GRY-YEL	140 OHMS ±10%

INPUT 3-1 (WHT-BLK) AT 1KHz (SEC. @ 8 OHMS)

60W	GRY-VIO	90 OHMS ±10%
30W	GRY-BLU	170 OHMS ±10%
15W	GRY-GRN	320 OHMS ±10%
7.5W	GRY-ORG	560 OHMS ±10%
3.75W	GRY-BRN	840 OHMS ±10%
1.88W	GRY-YEL	1080 OHMS ±10%

3. OUTPUT NO LOAD VOLTAGE: AT 1KHz PRI INPUT

25.0V & 70.7V V(O)	
GRY-VIO 60W	20.90~23.10VAC
GRY-BLU 30W	14.72~16.27VAC
GRY-GRN 15W	10.45~11.55VAC
GRY-ORG 7.5W	7.41~8.19VAC
GRY-BRN 3.75W	5.22~5.77VAC
GRY-YEL 1.88W	3.70~4.09VAC

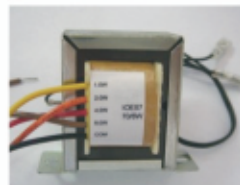
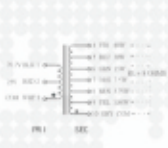
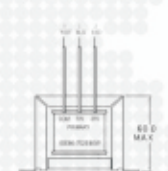
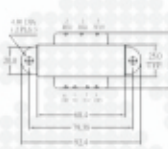
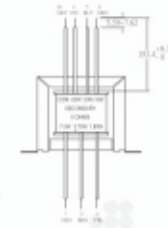
4. OUTPUT LOAD VOLTAGE: AT 1KHz PRI INPUT

25.0V & 70.7V V(L)	
GRY-VIO 60W	17.95~19.85VAC
GRY-BLU 30W	13.58~15.02VAC
GRY-GRN 15W	9.88~10.92VAC
GRY-ORG 7.5W	7.12~7.87VAC
GRY-BRN 3.75W	5.13~5.67VAC
GRY-YEL 1.88W	3.60~4.00VAC

5. INSERTION LOSS: AT 1KHz 3.0dB MAX

6. FREQUENCY RESPONSE: AT 50Hz TO 15KHz ±3.0dB (REF 1KHz)

7. HIPOT: PRI-SEC-CORE: 1000VAC/60 SECONDS



PART NO: IOE57-70/8W

1. IMPEDANCE: AT 1KHz PRIMARY (SEC. @ 8 OHMS)

8.0W	BLK-BRN	600 OHMS ±10%
4.0W	BLK-RED	1200 OHMS ±10%
2.0W	BLK-ORG	2400 OHMS ±10%
1.0W	BLK-YEL	4800 OHMS ±10%

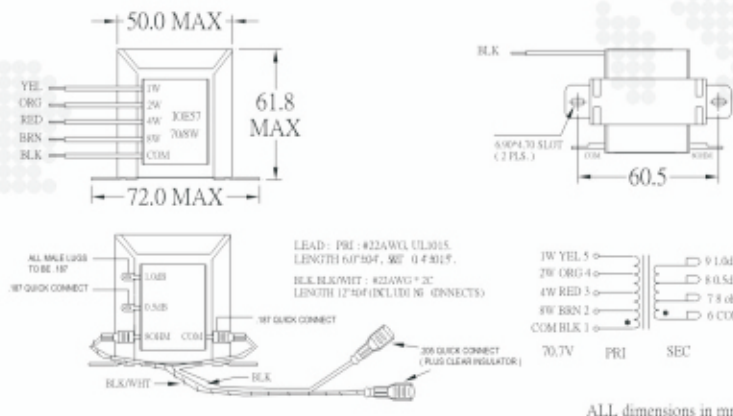
2. OUTPUT LOAD VOLTAGE: AT 1KHz PRIMARY INPUT 70.7VAC (SEC @ 8 OHMS)

8.0W	BLK-BRN	7.32VAC MIN
4.0W	BLK-RED	5.17VAC MIN
2.0W	BLK-ORG	3.66VAC MIN
1.0W	BLK-YEL	2.58VAC MIN

3. INSERTION LOSS: AT 1KHz 0.65dB MAX

4. FREQUENCY RESPONSE: AT 50Hz TO 15KHz ±2.0dB (REF 1KHz)

5. HIPOT: PRI-SEC-CORE: 1000VAC/60 SECONDS



ALL dimensions in mm

5-6、Slim Line Autotransformers Family

Use for 347V, 480V or 277V Electrical Supply

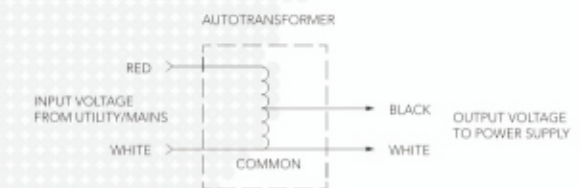
- ✓ Outputs 120V or 240V (ideal for 100-277V auto-ranging fixtures)
- ✓ Versatile "Slim" Profile: Low Height and Width
- ✓ Robust, reliable, low-cost autotransformer design
- ✓ Power Ratings from 25 to 240VA (see table below)
- ✓ UL Approved to US and Canadian Standards
- ✓ Open/Internal mount and Enclosed/External mount styles
- ✓ Brackets available for Open style parts.

Useful Applications

- ✓ Step-down 347V (Canadian) or 480V (US) supply to LED drivers and other types of lighting fixtures
- ✓ Industrial, Commercial, Office, Parking Garage and Street Lighting installations
- ✓ Suitable for higher ambient temperature conditions



▲ NEW Enclosed style – suitable for IP66 applications
Model 210041E shown (50VA)



▲ Open style – Models 210041, 210042 and 210043 shown (50, 100 and 240VA).

OPEN style, Class 130°C, Width 1.63" Height 1.31". Mounting brackets available (suffix M)

ENCLOSED style (suffix E), Class 105°C, Width 1.91" Height 1.57" plus Nipple* IP66.

Model Series	Input V	Output V Nominal	Power VA	Load Reg. (typ)	Efficiency (typ)	Length (inches)	Weight (lbs)	Length (inches)	Weight (lbs)
210041	347	240	50	6.5%	94%	1.85	0.6	2.07	0.8
210042	347	240	100	4.0%	93%	3.35	1.3	3.56	1.6
210043	347	240	240	4.0%	93%	6.38	2.8	prototype under development	
210100	347	120	25	11.5%	84%	1.85	0.6	2.07	0.8
210097	347	120	60	9.0%	86%	3.35	1.3	3.65	1.6
210098	347	120	125	7.3%	88%	6.38	2.8	prototype under development	
211063	480	240	35	11.0%	83%	1.85	0.6	2.07	0.8
210099	480	240	75	7.5%	93%	3.35	1.3	3.65	1.6
210083	480	240	170	6.0%	90%	6.38	2.8	prototype under development	
212024	277	240	125	2.0%	97%	1.85	0.6	2.07	0.8
212025	277	240	240	1.3%	97%	3.35	1.3	3.65	1.6

* 1/2" NPT Nipple threads – approx. dimensions, overall height 0.56", nipple thread height 0.45", nipple dia 0.7"

5-7、Switching Mode Power Transformers

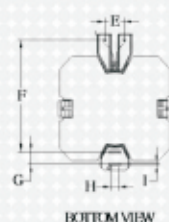
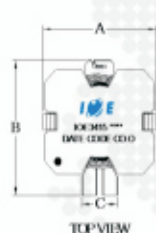
SWITCHING MODE POWER TRANSFORMER WITH PQ3415 THROUGH HOLE PLATFORM



- Designed for low cost AC to DC or DC to DC Flyback converters off-line transformer.
- The power range is up to 300 Watts, Solutions for low power loss and high efficiency.
- 3750Vrms insulation between primary windings and secondary windings.
- Can meet safety standard EN60950 & EN60065 & EN61558 requirements.
- Operating frequency at 40KHz to 500KHz.
- Horizontal and vertical bobbin platform can be selected.
- Materials meet UL 94V-0 & IEC950.
- Operating ambient temperature: -40°C to 85°C.
- Storage temperature: -40°C to 125°C.

MECHANICAL DIMENSIONS

Horizontal Bobbin



UNIT: mm

A	B	C	D	E	F	G	H	I	J	K	L
37.00 MAX	38.00 MAX	11.00 REF	32.50 ±0.40	6.00 ±0.20	31.00 ±0.30	3.30 ±0.30	2.50 REF	0.20 REF	4.10 ±0.50	0.50 ±0.10	15.20 MAX

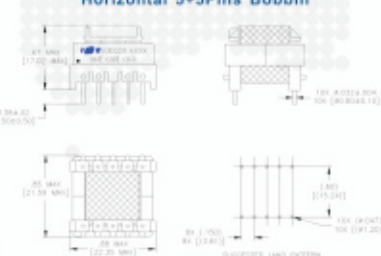
SWITCHING MODE POWER TRANSFORMER WITH EE20H THROUGH HOLE PLATFORM



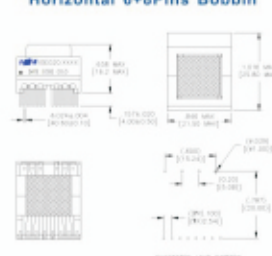
- Designed for low cost AC to DC or DC to DC Flyback converters off-line transformer.
- Primary reflected voltage is 120V Maximum.
- The power range is up to 38 Watts, Solutions for low power loss and high efficiency.
- 3000Vrms insulation between primary windings and secondary windings.
- Can meet safety standard EN60950 & EN60065 & EN61558 requirements.
- Operating frequency at 40KHz to 500KHz.
- Horizontal and vertical bobbin platform can be selected.
- Materials meet UL 94V-0 & IEC950.
- Operating ambient temperature: -40°C to 85°C.
- Storage temperature: -40°C to 125°C.

MECHANICAL DIMENSIONS

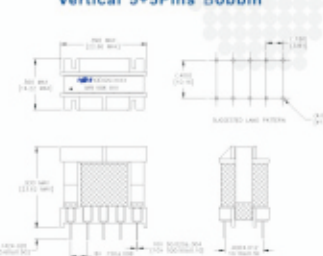
Horizontal 5+5Pins Bobbin



Horizontal 6+8Pins Bobbin



Vertical 5+5Pins Bobbin



5-8、Power Inductors

IOECYS0706-1R0M

- INDUCTANCE: AT 100KHz 0.1V
L0 (1-2) : 1.00uH ± 20%
Lsat (uH) min 70% of L0 AT Isat (@ 17.5A REF)
- DC RESISTANCE:
R(1-2) : 2.60mΩ MAX
- Operating Temperature : -10°C to +40°C.
- Storage Temperature : -10°C to +40°C.
- All dimensions are reference unless otherwise specified.
- Materials: All materials to be RoHS compliant.

Electronic characteristics can be designed per customer's request

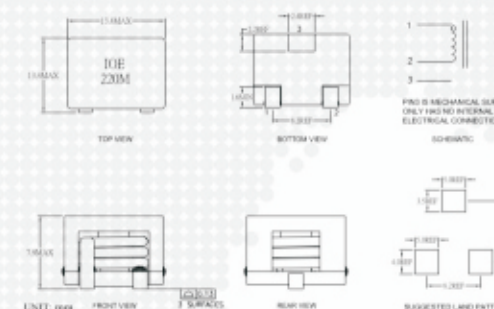
MECHANICAL DIMENSIONS



IOECYS1308-220M

- INDUCTANCE: AT 100KHz 0.1V
L0 (1-2) : 22.0uH ± 20%
Lsat (uH) min 70% of L0 AT Isat (@ 7.5A REF)
- DC RESISTANCE:
R(1-2) : 24.0mΩ MAX
- Operating Temperature : -10°C to +40°C.
- Storage Temperature : -10°C to +40°C.
- All dimensions are reference unless otherwise specified.
- Materials: All materials to be RoHS compliant.

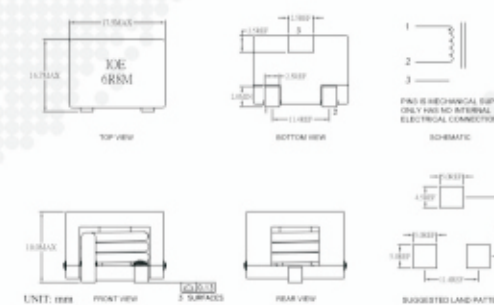
Electronic characteristics can be designed per customer's request



IOECY1708-6R8M

- INDUCTANCE: AT 100KHz 0.1V
L0 (1-2) : 6.80uH ± 20%
Lsat (uH) min 70% of L0 AT Isat (@ 18A REF)
- DC RESISTANCE:
R(1-2) : 3.30mΩ MAX
- Operating Temperature : -10°C to +40°C.
- Storage Temperature : -10°C to +40°C.
- All dimensions are reference unless otherwise specified.
- Materials: All materials to be RoHS compliant.

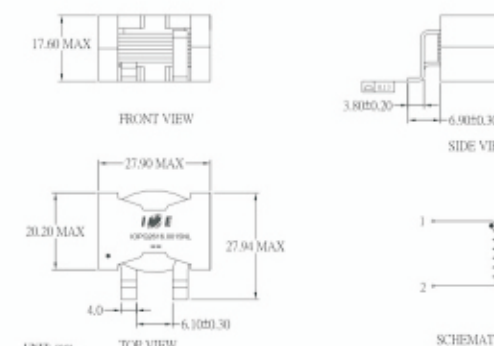
Electronic characteristics can be designed per customer's request

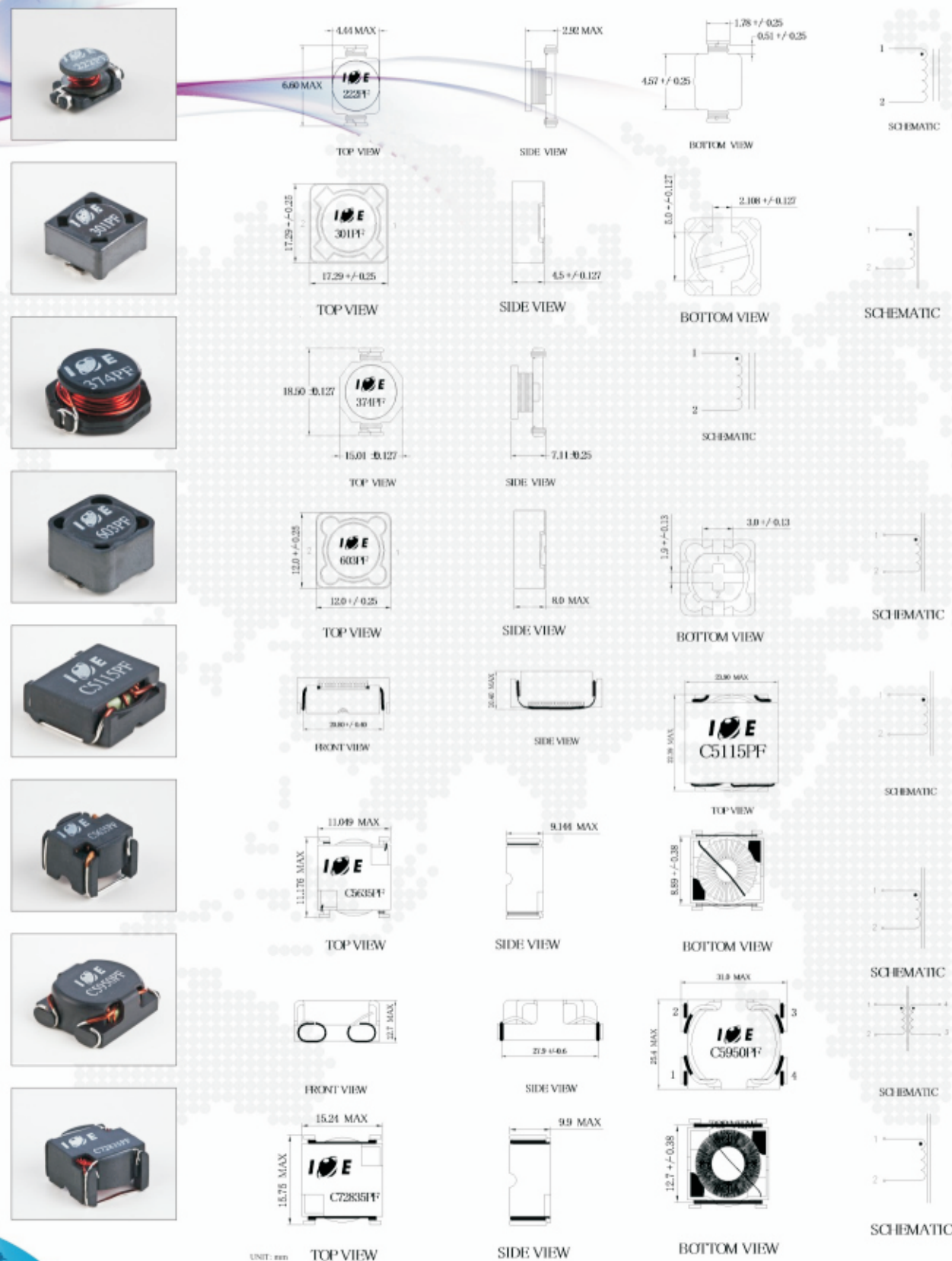


IOPQ2616.0015NL

- INDUCTANCE: AT 500KHz 0.1V
L (1-2) : 15.0uH ± 10%
L:18ADC (1-2) : 12.15uH ± 10%
- DC RESISTANCE:
R(1-2) : 2.82mΩ MAX
- SRF
(1-2) : 16.0 MHz TYP

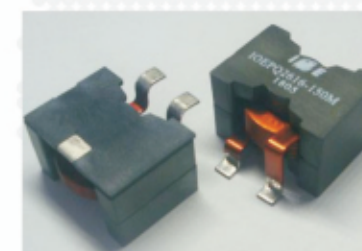
Electronic characteristics can be designed per customer's request





Planar Power Inductors

PQ2616 Series

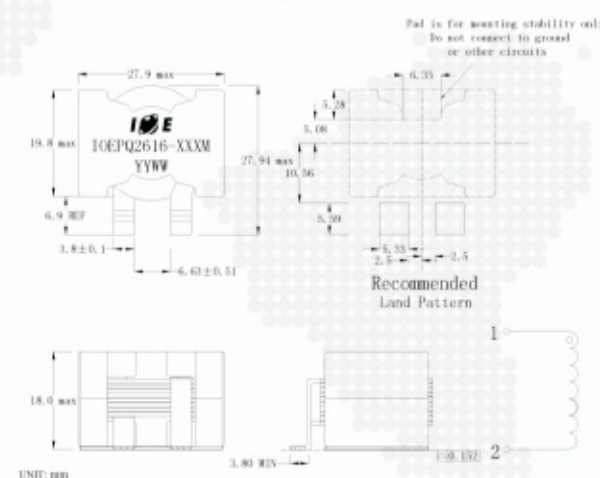


- Inductance Range: 3.3 to 33μH
- Isat: Up to 90A
- Ambient Temperature: -40°C to +85°C with (40°C rise) Irms current
- Max. part temperature: +125°C (ambient+temp rise). Derating.
- RoHS compliant
- Can be customized under customer's request

Models:

Part number	Inductance ±10%(μH)	DCR (mΩ) max	SRF typ(MHz)	Isat (A)			Irms (A)	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
IOEPQ2616-3R3M	3.3	2.86	40	91	92.5	93.6	20	28
IOEPQ2616-4R7M	4.7	2.86	30	59	61.2	62.4	20	28
IOEPQ2616-6R8M	6.8	2.86	25	42	45	45.9	20	28
IOEPQ2616-100M	10.0	2.86	20	28	31.2	32.1	20	28
IOEPQ2616-150M	15.0	2.86	16	18	21.2	21.9	20	/
IOEPQ2616-220M	22.0	2.86	15	12	14	15	/	/
IOEPQ2616-330M	33.0	2.86	10	7	8.7	9.6	/	/

Mechanical Details:



Remark:

- Inductance measured at 200 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or Equivalent
- SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16092A test fixture
- DC current at 25°C that causes the specified inductance drop from its value without current.
- Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

These data are for models selection. For detail specifications and customized requirement, please contact IOE



INTER OUTSTANDING ELECTRONICS, INC.

SMD Power Inductors – Shielded Drum Core – I1172 & I1173 Series



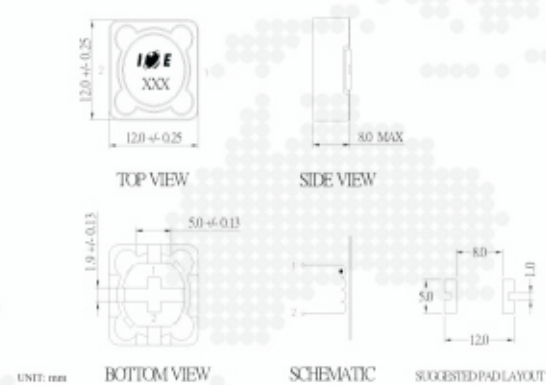
- Inductance Range: 0.8 to 51 μ H
- Size: 12.2mm x 12.2mm Max.
- Rating Current: Up to 14A
- Operating temperature: -25°C to +125°C
- RoHS compliant
- Can be customized under customer's request

Models:

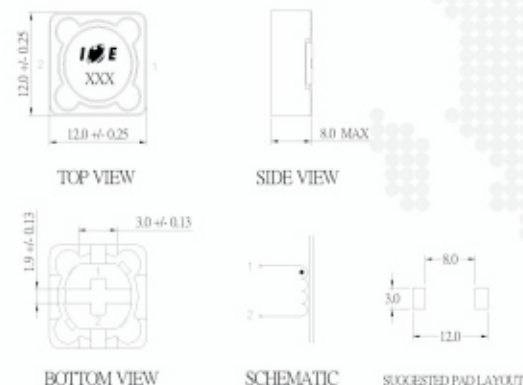
Part Number		Inductance @ 0 A _{DC} (μ H)	Inductance @I _{rated} (μ H) MIN	I _{rated} (A _{DC})	DCR(m Ω)		Saturation Current -25%(A)	Heating Current +40°C (A)	Core Loss Factor (K2)	SRF (MHz)
					TYP	MAX				
I1172.132	I1173.132	1.3 $\pm$ 30%	0.8	14	2.3	3	15	14	90	>40
I1172.202	I1173.202	2.0 $\pm$ 30%	1.3	10	4.5	6	13	10	110	>40
I1172.272	I1173.272	2.7 $\pm$ 30%	1.8	9	5.8	7.3	11	9	130	>40
I1172.372	I1173.372	3.7 $\pm$ 30%	2.4	8.3	6.8	8.5	9.2	8.3	150	37
I1172.472	I1173.472	4.7 $\pm$ 30%	3.1	7.9	7.6	9.5	8.2	7.9	170	33
I1172.602	I1173.602	6.0 $\pm$ 30%	3.9	6	13	16.5	6.9	6	200	30
I1172.762	I1173.762	7.6 $\pm$ 30%	4.9	5.7	14.3	18.5	6.2	5.7	220	25
I1172.103	I1173.103	10 $\pm$ 20%	7.5	5.2	17.3	21.8	5.5	5.2	250	20
I1172.123	I1173.123	12 $\pm$ 20%	9	4.5	23.3	29	5.1	4.5	280	18
I1172.153	I1173.153	15 $\pm$ 20%	11.3	4.1	28.3	35.4	4.4	4.1	300	15
I1172.183	I1173.183	18 $\pm$ 20%	13.5	4	29.4	37	4.3	4	340	13
I1172.223	I1173.223	22 $\pm$ 20%	16.5	3.8	33.2	42	3.8	3.8	370	12
I1172.273	I1173.273	27 $\pm$ 20%	20.3	3.4	36.2	45.9	3.4	3.6	410	11
I1172.333	I1173.333	33 $\pm$ 20%	24.8	3	49.3	64.8	3	3.1	460	10
I1172.393	I1173.393	39 $\pm$ 20%	29.3	2.7	65.2	81.5	2.8	2.7	490	8
I1172.473	I1173.473	47 $\pm$ 20%	35.3	2.6	71.4	89	2.6	2.6	550	7
I1172.683	I1173.683	68 $\pm$ 20%	51	2.1	108	135	2.1	2.1	670	6

Mechanical Details:

I1172

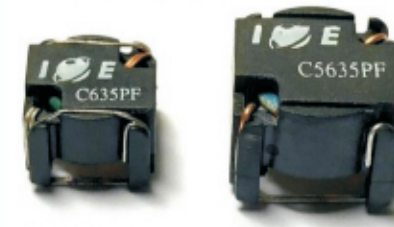


I1173



These data are for models selection. For detail specifications and customized requirement, please contact IOE

SMD Power Inductors – Slic Series

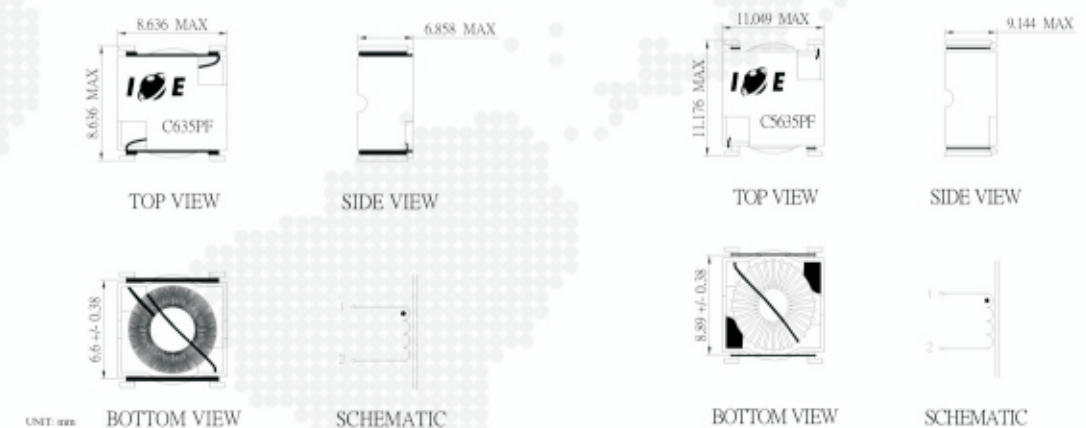


- Frequency: Up to 1MHz
- Operating temperature: -25°C to +125°C
- RoHS compliant
- Can be customized under customer's request

Models:

Part Number	Inductance @ I _{rated} (μ H)	I _{rated} (A _{DC})	DCR (m Ω)		Inductance @ 0A _{DC} (μ H)	Size (mm)
			Typ	Max		
C635PF	6.2	1.4	59.5	70.0	7.0	11.05x11.18x9.14
C5635PF	3.8	4.8	14.7	17.3	5.2	8.64x8.64x6.86

Mechanical Details:



These data are for models selection. For detail specifications and customized requirement, please contact IOE





INTER OUTSTANDING ELECTRONICS, INC.

SMD Power Inductors – Unshielded Drum Core – I0770 Series

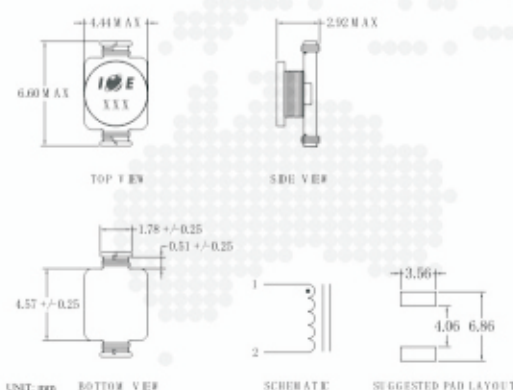


- Inductance Range: 1.0 to 220 μ H
- Size: 6.6mm x 4.5mm Max.
- Rating Current: up to 2.9A
- Operating temperature: -25°C to +125°C
- RoHS compliant
- Can be customized under customer's request

Models:

Part Number	Inductance @ I_{pk} A _{DC} (μ H $\pm$ 20%)	I _{rated} (A)	DCR(MAX) (m Ω)	Saturation Current (A) @ 25°C	Heating Current (A)
I0770.102	1.0	2.90	50	2.90	2.90
I0770.152	1.5	2.60	50	2.60	2.80
I0770.222	2.2	2.30	70	2.30	2.40
I0770.332	3.3	2.00	80	2.00	2.00
I0770.472	4.7	1.50	90	1.50	1.50
I0770.682	6.8	1.20	130	1.20	1.40
I0770.103	10	1.10	160	1.10	1.10
I0770.153	15	0.90	230	0.90	1.20
I0770.223	22	0.70	370	0.70	0.80
I0770.333	33	0.58	510	0.58	0.60
I0770.473	47	0.50	640	0.50	0.50
I0770.683	68	0.40	860	0.40	0.40
I0770.104	100	0.30	1270	0.31	0.30
I0770.154	150	0.25	2000	0.27	0.2
I0770.224	220	0.20	3110	0.22	0.20

Mechanical Details:

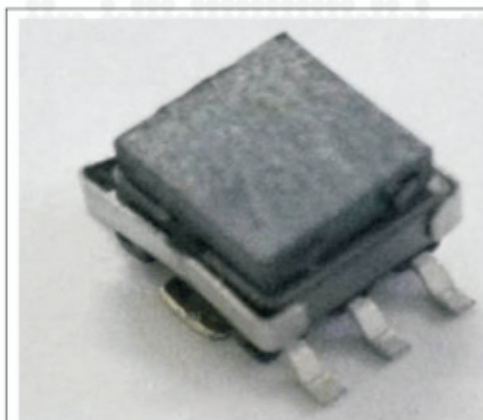


Remark:

- Inductance Tested at 100kHz, 0.01V
- Inductance drop = 10% typ. at the Sat. Current.
- $\Delta T = 15^\circ\text{C}$ rise typical at the Heating Current
- The rated current is the lower of the Saturation or heating current.

These data are for models selection. For detail specifications and customized requirement, please contact IOE

IOEEE5.0-SERIES



Terminations RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost

Ambient temperature -40°C to +125°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise). Derating.

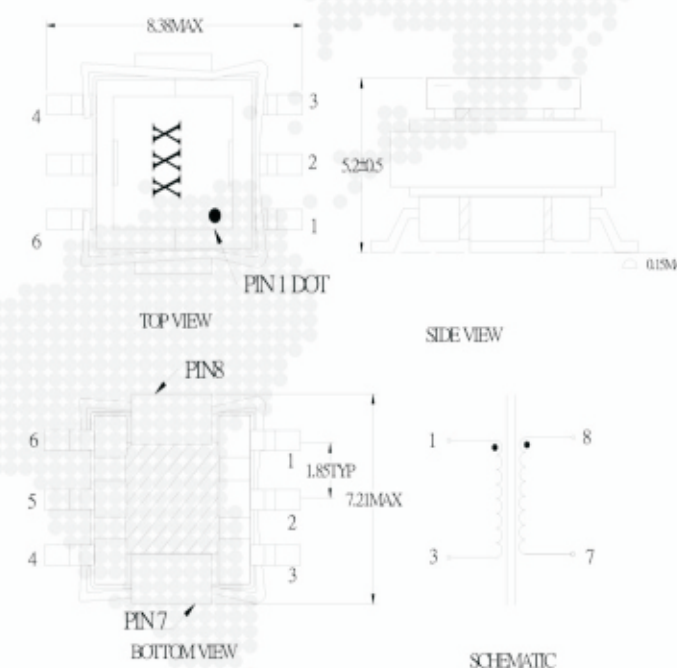
Storage temperature Component: -40°C to +125°C. Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Electronic characteristics can be designed per customer's request.

P/N	TURNS RATIO	CURRENT RATING (A)	SEC INDUCTANCE(mH min)	DCR		HI-POT V
				PRI(8-7) m Ω MAX	SEC(1-3) Ω MAX	
IOE050-20M	1:20	20	0.08	0.75	0.35	500
IOE050-30M	1:30	20	0.18	0.75	0.50	500
IOE050-40M	1:40	20	0.32	0.75	0.85	500
IOE050-50M	1:50	20	0.50	0.75	1.30	500
IOE050-60M	1:60	20	0.72	0.75	1.60	500
IOE050-70M	1:70	20	0.98	0.75	3.20	500
IOE050-100M	1:100	20	2.00	0.75	5.40	500
IOE050-120M	1:120	20	3.00	0.75	6.70	500

MECHANICAL DIMENSIONS UNIT: mm



INTER OUTSTANDING ELECTRONICS, INC.

IOECT-1304-XX

Part Number	Core	Turns	Wire Gauge	DC Resistance Nominal (Ohms)	H1	H2	V1	V2	Style
IOECT-1304-01	HP1201P	1000	40	47	0.12"	0.23"			Horizontal
IOECT-1304-19	HP1201P	1000	40	47	0.25"	0.00"			Horizontal
IOECT-1304-26	HP1201P	1000	40	47			0.12"	0.48"	Vertical 1
IOECT-1304-27	HP1201P	1000	40	47	0.077"	0.10"			Horizontal
IOECT-1304-28	T1304	250	39	11.5	0.077"	0.10"			Horizontal
IOECT-1304-30	5031	2000	40	129			0.052"	0.125"	Vertical 2
IOECT-1304-31	T1304	200	39	9.1			0.12"	0.48"	Vertical 1
IOECT-1304-32	T1304	200	39	9.1	0.077"	0.10"			Horizontal
IOECT-1304-33	HP1201P	1000	40	47			0.052"	0.125"	Vertical 2
IOECT-1304-36	HP1201P	1000	40	47			0.052"	0.125"	Vertical 2
IOECT-1304-37	HP1201P	2000	40	126			0.052"	0.125"	Vertical 2

Notes: 1. Alternate number of turns, pin configurations and lengths are available upon request.

2. Core HP1201 is a Nickel ring core for the GFCI sense coil.

3. Core T1304 is a ferrite core for the GFCI Ground - Neutral coil.

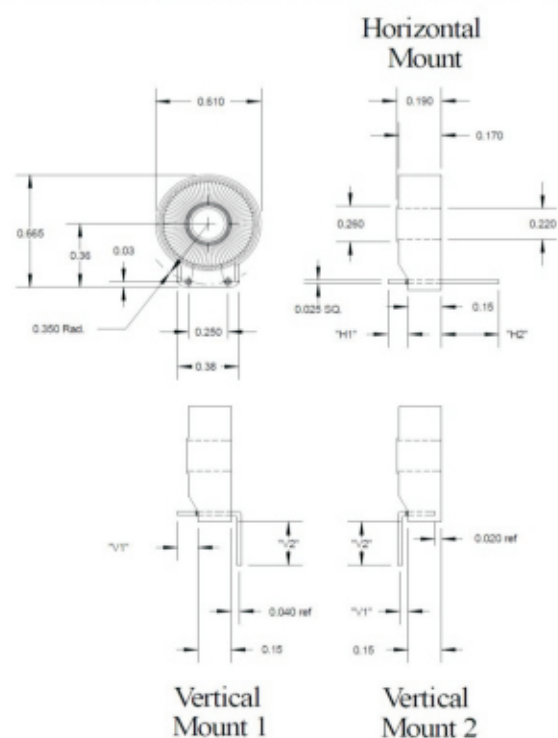
4. Core 5301 is an amorphous ring core for the GFCI sense coil.

5. Bracket Material is Nylon 6/6, Black

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MECHANICAL DIMENSIONS

UNIT: Inches



IOE AIR COIL SERIES

The coil is the key to make the electronic magnetic field, according to different purposes; the shape of the coil is varied. With the development of science and technology, the upgrading of products, more need to speed up the development of the pace of work, application field coil is infinite.

Air coil inductor is mainly applied to the induction receiver, focusing, magnetic, magnetic current coil, low voltage electrical appliances, industrial control, home appliances, automotive electronics, mount SMT, mobile phone, wireless transceiver, electronic navigation device, power regulator, amplifier, supply and filtering field.

Electronic characteristics can be designed per customer's request

Each type of air core coil is as follows



IOEPFC3023-1.6



1. Operating temperature: -40°C to $+125^{\circ}\text{C}$
2. Storage temperature: -25°C to $+85^{\circ}\text{C}$
3. Storage humidity: 30 to 95

INDUCTANCE:

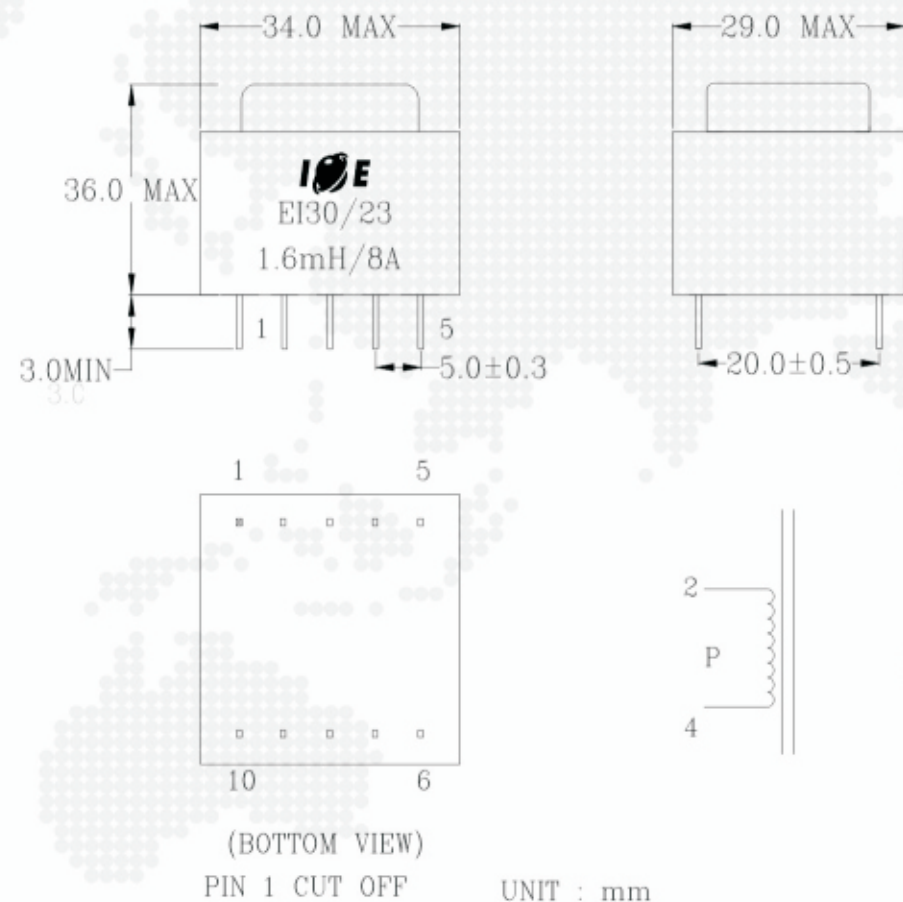
AT 1.0KHz 0.25V L (2-4) : 1.6mH $\pm 10\%$

DC RESISTANCE:

R(1-2) : 0.5 Ω MAX

Electronic characteristics can be designed per customer's request

MECHANICAL DIMENSIONS



Production Equipments



Winding machine-1



Winding machine-2



Auto winding -1



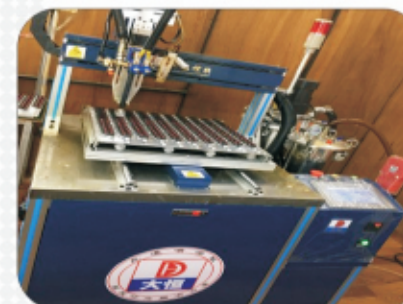
Auto winding -2



Auto winding -3



Auto testing



Auto potting



labeling



Laser marking



Marking checking



Pin length inspection



3D printer



INTER OUTSTANDING ELECTRONICS, INC.

Quality Assurance

Quality Policy:

Start from 0——the start of quality control.
Disadvantage correction——the course of improving production quality.
Innovation——meet customer's needs.

Quality Target:

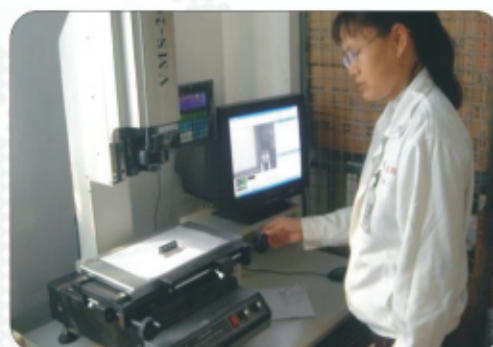
Customers contentment above 95%
Returning goods below 3PCS every month
Complain below 5 times every month

Quality Control Item

- Incoming Quality Control
- In-Process Quality Control
- Outgoing Quality Control

INCOMING QUALITY CONTROL

1. All materials purchased are subjected to "incoming quality control" inspection according to mil-std-105 sampling plan.
2. All materials that do not meet specifications are to be controlled to prevent unauthorized usage.



IN-PROCESS QUALITY CONTROL

1. Prior to mass production, prior-runs are conducted to see if there is any operation obstacles and to prevent defective parts being made.
2. When production lines are running, quality control are taken by the followings:
 - In-process quality control:
Inspect those operations easily caused defects according to engineering specifications and QA tracking tables.
 - If any abnormal quality found, inspectors should inform QA engineers. After having analyzed and identified the root cause of the problems, corrective actions would be taken right away to reassure production line is under control.
 - We setup some quality control points in line to measure transformers' electrical characteristics. Parts are inspected 100% to ensure our products are good.

Outgoing quality control

Outgoing qc inspectors inspect products base on the mil-std-105 level sampling and decide to submit products from production according to the inspection report.

All rejected lots should be 100% inspected and reworked in the production lines before re-submission to QC department.

QC department should perform a failure analysis test and follow up corrective actions.



QC/Technical Support

- ISO9001 certificates: IOE requests main materials (wire/tape/varnish/lamination/bobbin/lead wire etc) suppliers have ISO9001 certificates to ensure suppliers have a perfect control process to provide IOE with materials of consistent quality for IOE production usage.
- UL approval: for pulse UL/CSA/TUV standard parts or other parts with UL/CSA approval, IOE requests suppliers provide UL# or UL card of mater IALS for IOE record or reference to ensure all materials meet pulse insulation requirements especially for tape/wire/bobbin/varnish/lead wire etc.
- Supplier quality ranking process: IOE do supplier quality ranking for all suppliers every season and issue corrective action notices to ensure suppliers solve their problems ASAP or cancel the supplier's qualification if they can't solve their problem in time.





INTER OUTSTANDING ELECTRONICS, INC.

OEM&ODM Services



OEM services

We provide OEM services:

As long as the customers provide the spec that in line with the requirements of the electrical characteristics, we can produce the required transformer for you.

IOE hold the best production team and strict quality control policy for your products and offer guarantees.

We are willing to help you save your high labor cost and factory rent, providing you with more competitiveness.

The process of OEM:

IOE engineering department will study customer provided spec sheets to try samples or customers provided design parameters to design transformers for customer's review.

IOE will verify with customers if they have any questions found in the documents.

IOE will send samples in accordance with customers' confirmed spec sheets for customer approval.

ODM services

We undertake external ODM services.

1, what is ODM

ODM (Original Designed Manufacturer), which can provide customers with products from research and development, design and manufacturing to the latter part of the maintenance of all the service, customers only need to supply ODM service provider with products made of features, performance or even just product ideas, ODM service providers will be able to make products from a vision into reality.

2, why choose ODM

If you have a good product idea and a broad market, but suffer from product R & D capacity, or you are tired of the production of R & D, or you just want to focus on the market, do not want to concentrate on research and development in the production of many of the red tape Details, then we can provide you with rapid ODM service. From now on, your grasp of the market, will be able to be successful and we will always be your strong backing.

3, our ability to ODM

First-class R & D team, rich reserves of technical and product experience provide you with the rapid development of products and service, and ensure the product quality and low price.

Advanced production lines and strict quality management provide you with excellent production service. The upper reaches of the rich resources and vendors supporting vendor resources in a timely manner ensure the supply of spare parts, providing necessary protection for the rapid introduction.

Our Major Customers

PulseR
Ruggedized Solutions

invensys

Panasonic
ideas for life



SIEMENS

Spider
electronics

EGSTON
A Pulse Electronics Company

VENTRONICS

E Craftsmen
CUSTOM TRANSFORMERS AND INDUCTORS

PAYTON
PLANAR
Innovation • Design • Performance

LumaSTREAM

PREM
MAGNETICS, INC. 100% TESTED



Wabash
transformer

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