

## EP7 SERIES SMT POWER TRANSFORMER MODULES

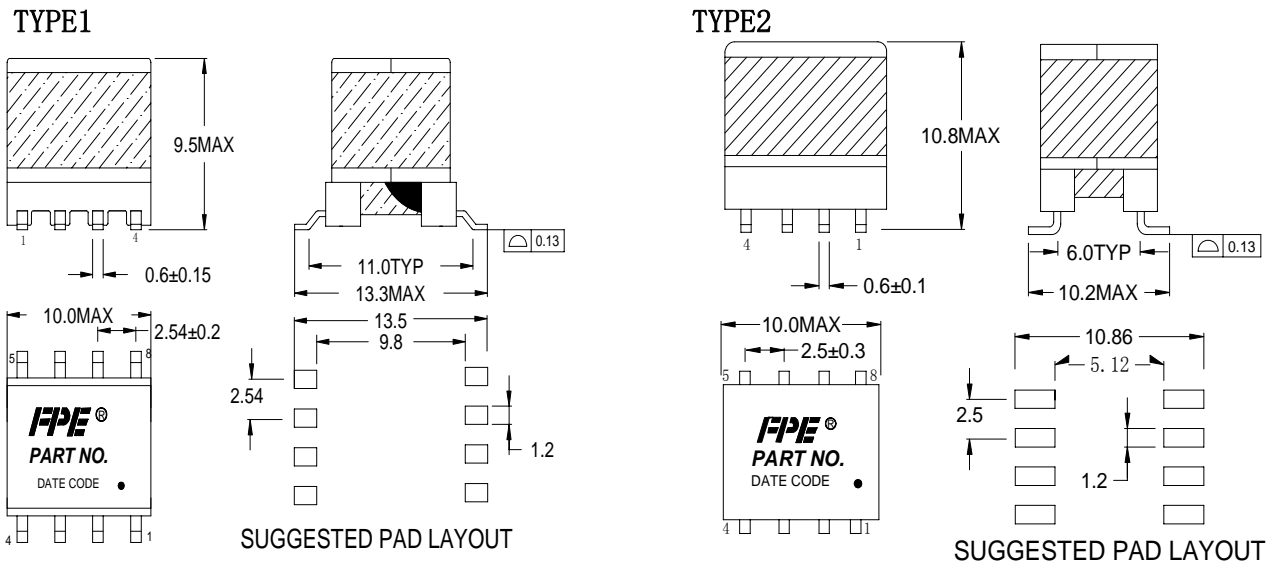
- ◆ Power Range: Up to 10W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS



ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating (W)	Vin (VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A (uH) ±10%	L at Ipk (uH) Min	Ipk (A)	Turns Ratio (PRI:SEC:AUX)	Schematic
PW01063ST	3.0	36V-72V	3.3/12	250	310	280	0.3	1:0.19:0.70	Figure1
PW01064ST	3.0	30V-72V	5.0/12	250	310	280	0.3	1:0.28:0.70	Figure1
PW01065ST	3.0	36V-72V	12/12	250	310	280	0.3	1:0.70:0.70	Figure1

### Dimension & Footprint (UNIT:mm)



### SCHEMATICS

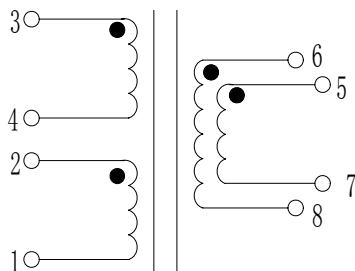


Figure1

## EP10 SERIES SMT POWER TRANSFORMER MODULES

- ◆ Power Range: Up to 20W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS

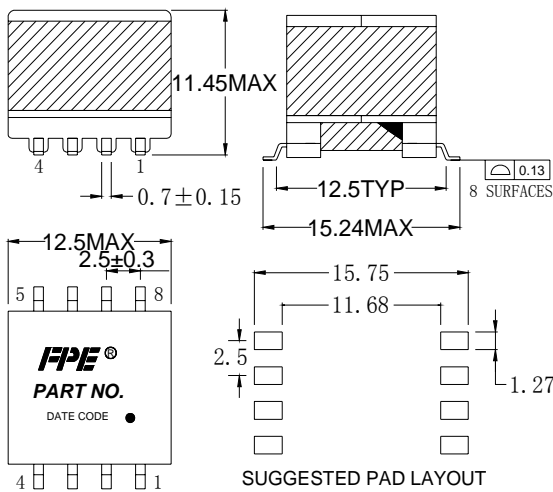


ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

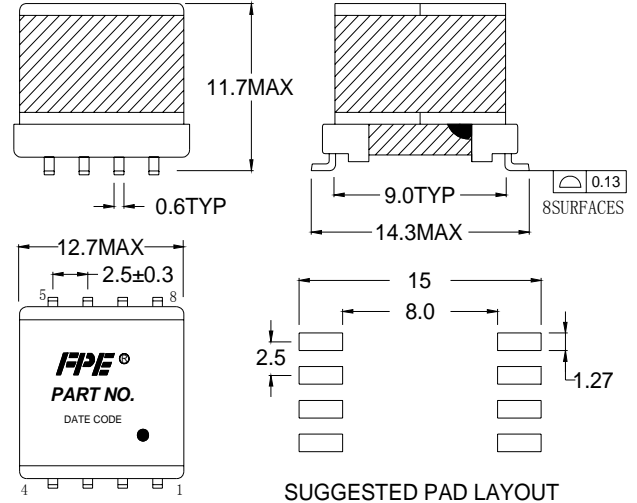
Part Number	Power Rating (W)	Vin (VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A (uH) ±10%	L at Ipk (uH) Min	Ipk (A)	Turns Ratio (PRI:SEC:AUX)	Schematic
PW01066ST	7.0	36V-72V	3.3/12	250	155	140	0.65	1:0.19:0.667	Figure1
PW01067ST	7.0	36V-72V	5.0/12	250	155	140	0.65	1:0.262:0.667	Figure1
PW01068ST	7.2	36V-72V	12/12	250	155	140	0.65	1:0.667:0.667	Figure1
PW01071ST	10	36V-72V	3.3	400	40	36	1.3	1:0.3	Figure2
PW01072ST	10	36V-72V	5.0	400	40	36	1.3	1:0.4	Figure2
PW01073ST	10	33V-72V	12.0	400	40	36	1.3	1:1	Figure2

### Dimension & Footprint (UNIT:mm)

TYPE1



TYPE2



### SCHEMATICS

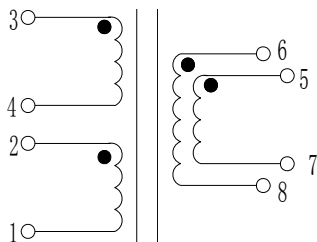


Figure1

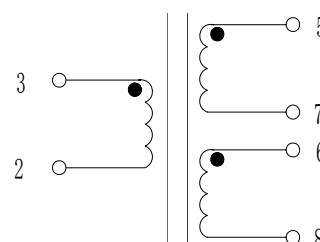


Figure2

## EP13 SERIES SMT POWER TRANSFORMER MODULES

- ◆ Power Range: Up to 60W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS



### ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating(W)	Vin(VDC)	Out put (VDC)	Nom Freq. (KHz)	L at0A(μH) ±10%	Turns Ratio (PRI:SEC:AUX)	Schematic
PW01021ST	13.5	33V-57V	3.3/8	200	126.7	1:0.083:0.208	Figure1
PW01022ST	13.5	33V-57V	5.0/8	200	126.7	1:0.125:0.209	Figure1
PW01023ST	13.5	33V-57V	12.0/8	200	126.7	1:0.292:0.207	Figure1
PW01024ST	14	33V-57V	5.0V/3.3/8	200	88	1:0.05:0.25	Figure2
PW01025ST	9	33V-57V	3.3/5.0/8	200	480	1:0.083:0.125:0.23	Figure3
PW01026ST	13.5	33V-57V	5.0/8	200	77.5	1:0.273:0.68	Figure1
PW01027ST	11	33V-57V	3.3/12	200	155.5	1:0.167:0.638	Figure1
PW01028ST	13.2	33V-57V	3.3/12	200	77.4	1:0.182:0.682	Figure1
PW01029ST	13.5	33V-57V	12.0/12	200	77.4	1:0.68:0.68	Figure1
PW01030ST	13.86	9V-50V	3.3/12	200	16.4	1:0.33:0.8	Figure1
PW01031ST	12	9V-16V	24.0/24.0	200	104.2	1:0.35:0.35	Figure6
PW01032ST	27	33V-57V	15.0/12	200	29	1:0.47:0.29	Figure1
PW01033ST	39.6	26V-68V	3.3/10	300	230	1:0.167:0.5	Figure1
PW01034ST	39.6	28V-68V	12.0/10	300	230	1:0.585:0.503	Figure3
PW01035ST	12	36V-60V	5.0/12	250	64	1:0.2:0.5	Figure1
PW01036ST	13	18V-72V	3.3/8	200	58	1:0.167:0.417	Figure1
PW01037ST	13	33V-75V	5.0/12	200	108	1:0.2:0.2:0.5	Figure2
PW01038ST	12	36V-60V	5.0/12	200	6.7	1:0.33:0.777	Figure1
PW01039ST	11	33V-57V	3.3/8	200	115.5	1:0.167:0.33	Figure1
PW01040ST	12	36V-60V	5.0/10	200	164	1:0.125:0.25	Figure1
PW01041ST	11	33V-57V	5.0/10	200	164	1:0.125:0.25	Figure3
PW01042ST	15	33V-57V	5.0/10	200	617.5	1:0.33:0.667	Figure1
PW01043ST	10.56	10V-14V	3.3	250	5	0.000703148	Figure5
PW01044ST	12	33V-60V	3.3/10	200	152	1:0.094:0.28	Figure1
PW01045ST	13	7V-57V	5.0/8	200	10.0	1:0.4:0.6	Figure1
PW01046ST	24	33V-57V	5.1/10	200	50.0	1:0.11:0.22	Figure1
PW01047ST	10	33V-57V	3.3/10	250	85.0	1:0.259:0.777	Figure1
PW01048ST	24	33V-57V	5.0/12	200	100.0	1:0.25:0.535	Figure1
PW01049ST	10	33V-57V	5.0/10	200	85.0	1:0.37:0.778	Figure1
PW01050ST	25	37V-57V	5.0/12	200	37.0	1:0.2:0.5	Figure4
PW01051ST	60	36V-72V	5.0/12	200	530	1:0.25:0.55	Figure1
PW01052ST	25.5	30V-60V	5.1/12	225	430.0	1:0.278:0.667	Figure1
PW01053ST	8.25	9V-36V/ 36V-60V	3.3/12	250	80.0	1:0.167:0.625	Figure7
PW01054ST	24	36V-72V	5.0/12	250	100.0	1:0.167:0.667	Figure1
PW01055ST	24.75	37V-57V	3.3/12	250	37.0	1:0.15:0.60	Figure4
PW01056ST	25.2	37V-57V	12/12	250	37.0	1:0.50:0.55	Figure1

## EP13 SERIES SMT POWER TRANSFORMER MODULES

- ◆ Power Range: Up to 60W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS

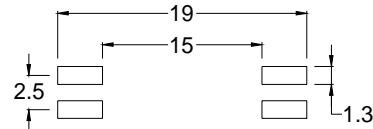
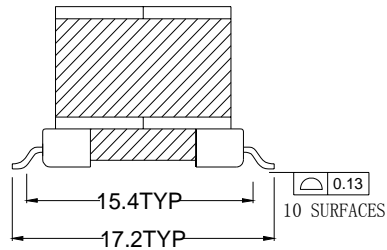
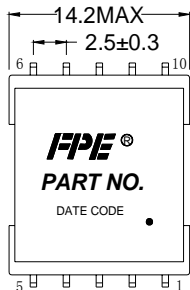
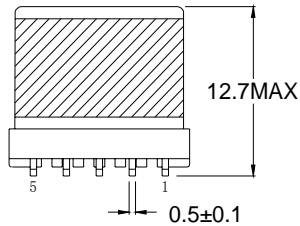


ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating (W)	Vin (VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A (uH) ±10%	L at Ipk (uH) Min	Ipk (A)	Turns Ratio (PRI:SEC:AUX)	Schematic
PW01057ST	14.85	36V-57V	3.3	200	40	36	2.0	1:0.3	Figure5
PW01058ST	15	36V-57V	5.0	200	40	36	2.0	1:0.4	Figure5
PW01059ST	15	36V-57V	12.0	250	40	36	2.0	1:1	Figure5
PW01070ST	13.7	24V-60V	3.3/10	250	127	115	1.0	1:0.167:0.5	Figure4
PW01074ST	13.2	33V-72V	3.3/12	250	127	115	1.0	1:0.166:0.5	Figure5
PW01075ST	13	37V-72V	5.0/12	250	127	115	1.0	1:0.25:0.5	Figure5
PW01076ST	12.96	36V-72V	12/12	250	127	115	1.0	1:0.50:0.50	Figure5

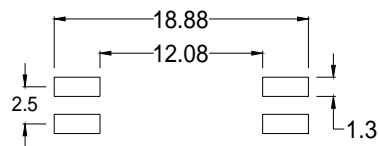
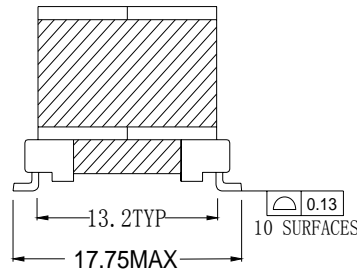
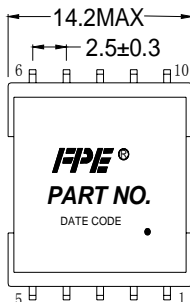
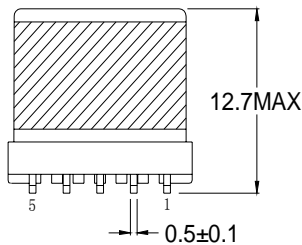
### Dimension & Footprint (UNIT:mm)

TYPE1



SUGGESTED PAD LAYOUT

TYPE2



SUGGESTED PAD LAYOUT

## EP13 SERIES SMT POWER TRANSFORMER MODULES

### SCHEMATICS

Figure1

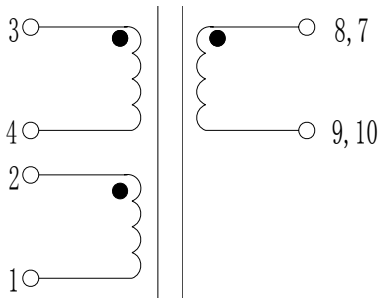


Figure2

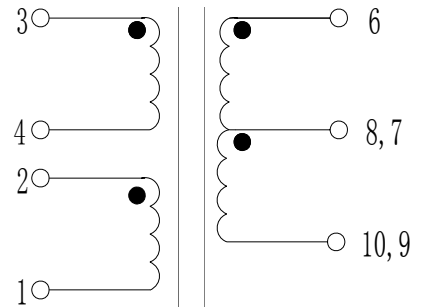


Figure3

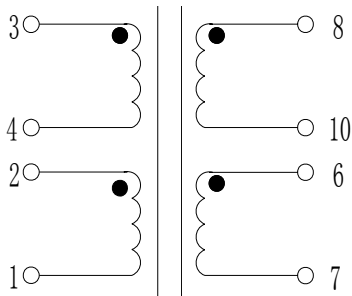


Figure4

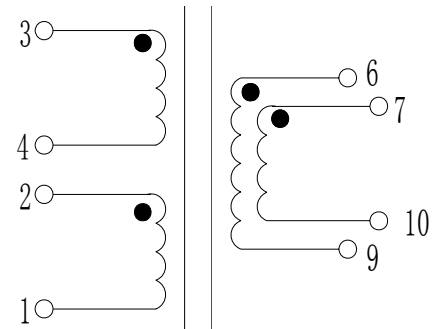


Figure5

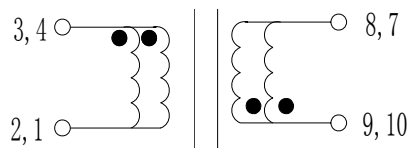


Figure6

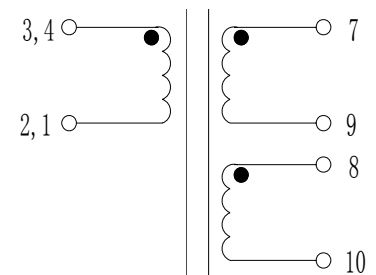
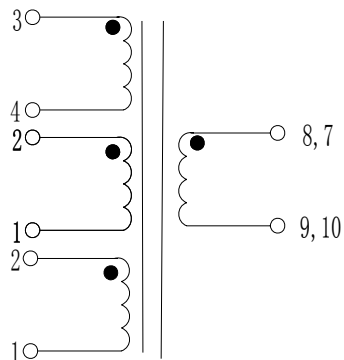


Figure7



## EFD15 SERIES SMT POWER TRANSFORMER MODULES

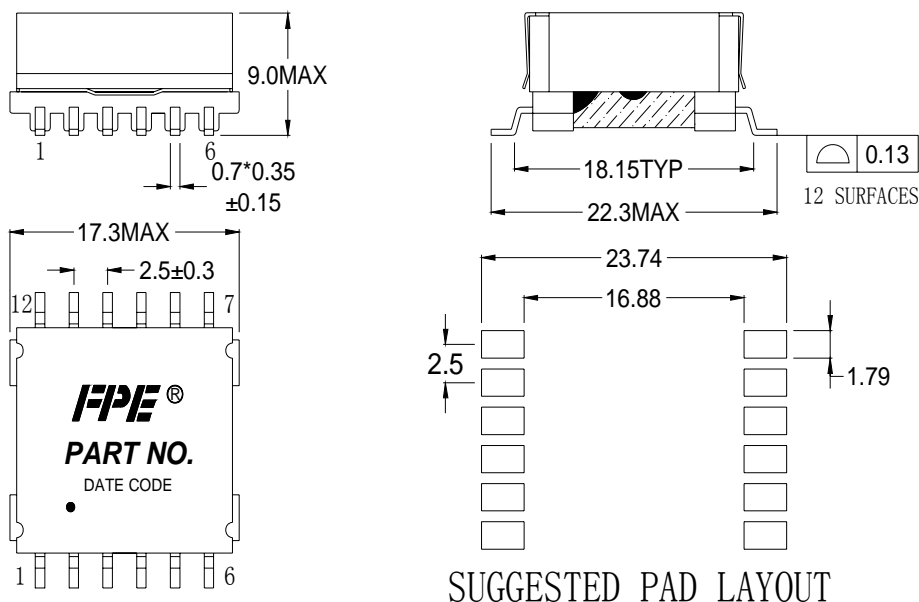
- ◆ Power Range: Up to 40W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS



ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating(W)	Vin(VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A(uH) ±10%	Turns Ratio (PRI:SEC:AUX)	Schematic
PW07020ST	15	18V-72V	5.0/10	500	9.85	1:0.374:0.873	Figure1
PW07021ST	9.9	28V-59V	3.3/10	100	170.3	1:0.154:0.269:0.5	Figure2
PW07022ST	10	30V-57V	5.0/10	100	157.5	1:0.2:0.3:0.44	Figure2
PW07023ST	19.8	34V-75V	3.3/10	200	113	1:0.25:0.25:0.833	Figure4
PW07024ST	20.8	9.5V-13V	52	200	38.2	1:4:4	Figure5
PW07025ST	12.2	28V-59V	3.3/5.6/10	175	100	1:0.15:0.274:0.48	Figure2
PW07026ST	15.6	33V-57V	5/3.3/30/12	200	62	1:0.318:0.182:1.687:0.682	Figure3
PW07027ST	12.2	28V-59V	3.3/12	250	100	1:0.15:0.574	Figure1
PW07028ST	12	28V-59V	5.0/12	250	100	1:0.2:0.5	Figure1
PW07029ST	11.55	36V-50V	3.3/8.5/12	200	170	1:0.067:0.178:0.245	Figure2
PW07030ST	11.6	20V-60V	3.3/5.0	300	144	1:0.25:0.375	Figure6
PW07031ST	12.6	12V-20V	6.0/6.0	100	37	1:0.33:0.33	Figure3
PW07032ST	9.4	36V-72V	15/8.5/12	250	170	1:0.289:0.156:0.22	Figure2
PW07033ST	10.3	36V-72V	12/8.5/12	250	170	1:0.22:0.156:0.22	Figure2
PW07034ST	10	36V-72V	9/8.5/12	250	170	1:0.177:0.156:0.22	Figure2
PW07035ST	11	36V-72V	5/8.5/12	250	170	1:0.089:0.156:0.22	Figure2
PW07036ST	9.7	36V-60V	12/12/12	250	25	1:0.35:0.35:0.35	Figure7
PW07037ST	19.8	36V-72V	3.3/12	250	40	1:0.125:0.459	Figure1
PW07038ST	13	29V-59V	5.2/12	250	70	1:0.2:0.5	Figure1
PW07039ST	12	30V-60V	12/15	250	122	1:0.457:0.57	Figure1

### Dimension & Footprint (UNIT:mm)



## EFD15 SERIES SMT POWER TRANSFORMER MODULES

### SCHEMATICS

Figure1

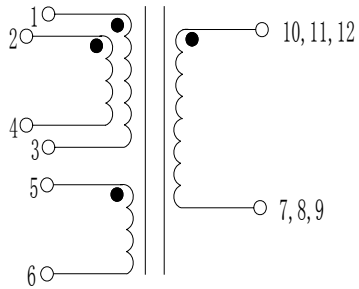


Figure2

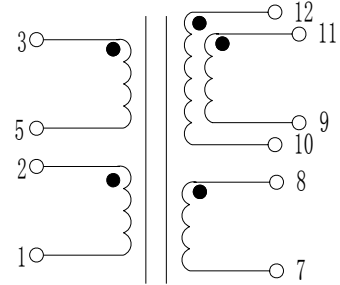


Figure3

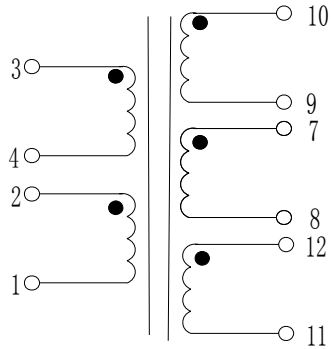


Figure4

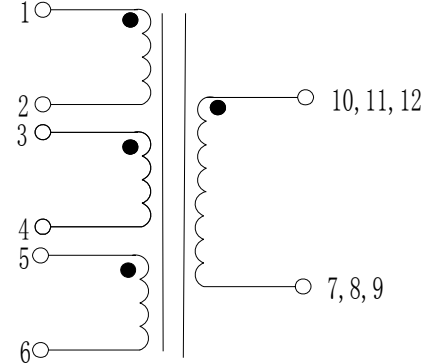


Figure5

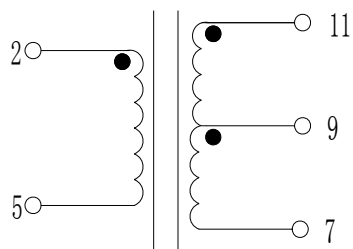


Figure6

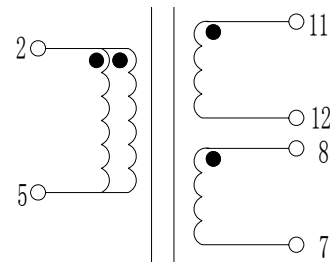
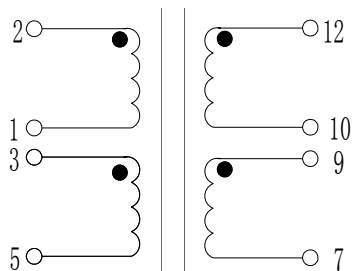


Figure7



## EFD15 SERIES SMT POWER TRANSFORMER MODULES

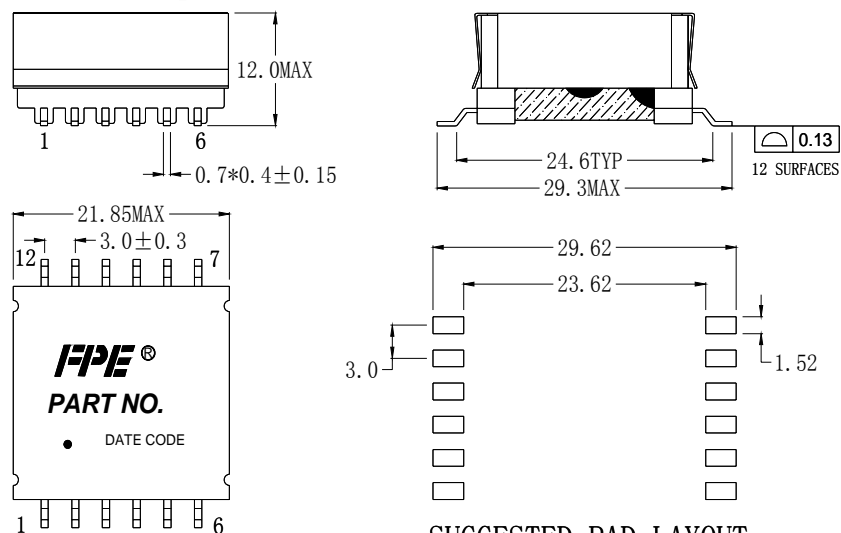
- ◆ Power Range: Up to 95W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS



ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating (W)	Vin (VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A (uH) ±10%	Turns Ratio (PRI:SEC:AUX)	Schematic
PW07040ST	54	36V-72V	12/12	250	310	1:0.625:0.625	Figure1
PW07041ST	14.85	25V-75V	3.3/15	250	110	1:0.231:0.69	Figure2
PW07042ST	30.25	18V-60V	5.0/2.5/15	200	114	1:0.5:0.2:1.5	Figure2
PW07043ST	70	36V-75V	5/12/-12/12	250	90	1:0.2:0.466:0.466:0.334	Figure4
PW07044ST	45	34V-75V	5/5/12	550	137	1:0.36:0.36:0.82:1	Figure5
PW07045ST	30	36V-57V	5.0/12	200	55	1:0.188:0.5	Figure2
PW07046ST	24	10V-14V	48	150	10	1:6	Figure3
PW07047ST	42.7	40V-60V	5/12/17.5	280	41	1:0.125:0.188:0.125	Figure1
PW07048ST	33	36V-72V	3.3/13	200	38	1:0.125:0.5	Figure1
PW07049ST	37.15	33V-57V	5/3.3/11.3/12	200	11.5	1:0.375:0.25:0.875:1	Figure2
PW07050ST	18.8	34V-57V	5.0/7.5/12	250	66	1:0.19:0.286:0.476	Figure6
PW07051ST	30	12V-18V	48	200	7.8	1:4	Figure3
PW07052ST	40	18V-50V	3.3/10	250	73	1:0.375:0.375	Figure3
PW07053ST	40	36V-72V	5.0/13	200	28.5	1:0.188:0.50	Figure3
PW07054ST	60	36V-72V	12/13	200	21	1:0.375:0.44	Figure3
PW07055ST	33	9V-36V	3.3/12	200	4.5	1:0.33:1.167	Figure3
PW07056ST	35	9V-36V	5.0/12	200	4.5	1:0.5:1.165	Figure3
PW07025ST	36	9V-36V	12/12	200	4.5	1:1.163:1	Figure2
PW07058ST	11.52	34V-57V	7.2/13	250	34	1:0.286:0.52	Figure2
PW07059ST	27.4	36V-72V	5/3.3/2.5/13	250	44.4	1:0.1:0.05:0.15:0.8	Figure2
PW07060ST	27.4	9V-36V	5/3.3/2.5/13	250	7.2	1:0.25:0.125:0.375:2	Figure2
PW07070ST	48	41V-56V	6/6	330	292	1:0.25:0.25	Figure7
PW07071ST	44.7	40V-72V	3.3/5/-5/12	200	48.4	1:0.13:0.2:0.2:0.467	Figure1
PW07072ST	23.4	36V-72V	3.3/5.0/10	250	57.6	1:0.25:0.418:0.75:0.83	Figure1

### Dimension & Footprint (UNIT:mm)



SUGGESTED PAD LAYOUT



## EFD20 SERIES SMT POWER TRANSFORMER MODULES

### SCHEMATICS

Figure1

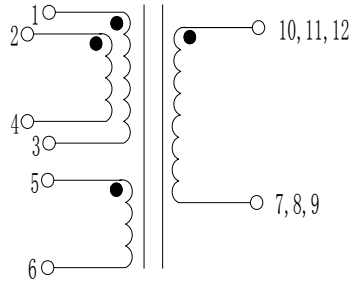


Figure2

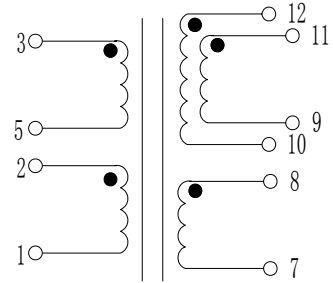


Figure3

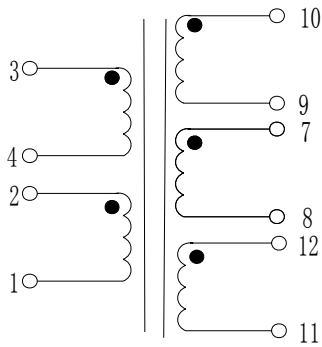


Figure4

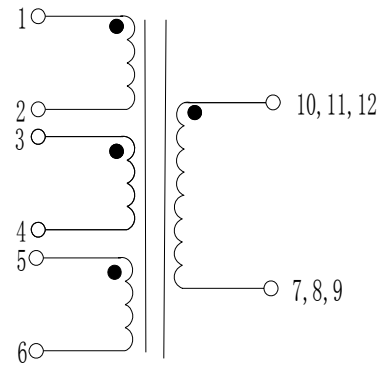


Figure5

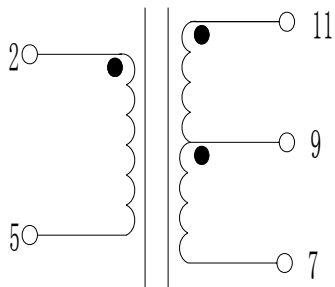


Figure6

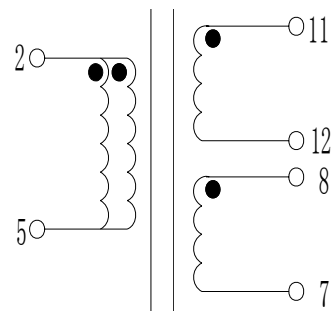
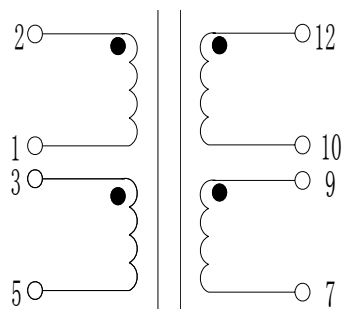


Figure7



## EFD25 SERIES SMT POWER TRANSFORMER MODULES

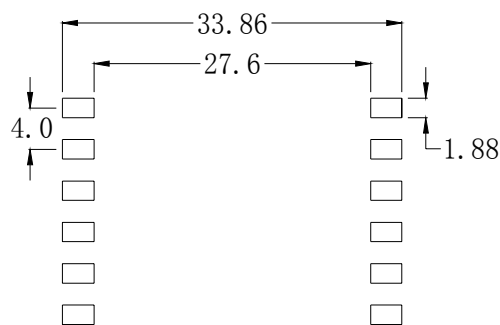
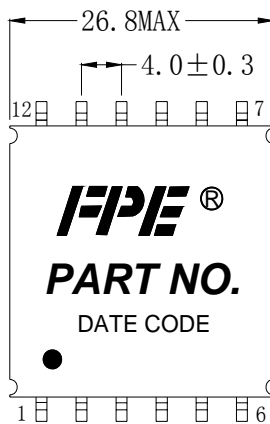
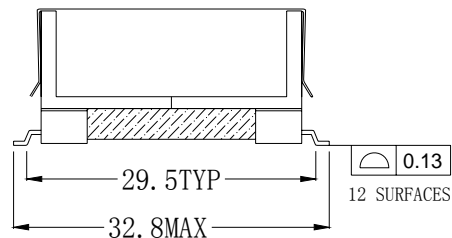
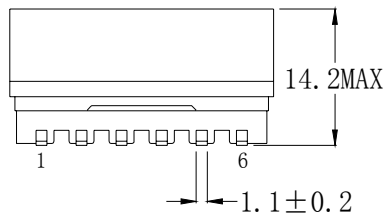
- ◆ Power Range: Up to 110W
- ◆ Topology: Forward and Flyback
- ◆ Comply With ROHS



ELECTRICAL SPECIFICATIONS@25°C (Operating Temperature:0°C to 70°C)

Part Number	Power Rating(W)	Vin(VDC)	Out put (VDC)	Nom Freq (KHz)	L at 0A (uH) ±10%	Turns Ratio (PRI:SEC:AUX)	Schematic
PW07076ST	72	12V	3.67/3.67	250	21.4	1:3.67:3.67	Figure1
PW07077ST	54	16V-44V	12/8/12	100	26.5	1:0.5:0.286:0.5	Figure2
PW07078ST	70	36V-72V	20	200	31	1:0.667	Figure3
PW07079ST	35	40V-48V	5.0/14	200	200	1:0.125:0.344	Figure4
PW07080ST	36.4	43V-53V	5.2/2.6/14	200	300	1:0.125:0.44:0.344	Figure4
PW07081ST	52.8	18V-65V	3.3	200	98	1:0.286	Figure3
PW07082ST	38.4	34V-57V	12	150	3.6	1:2	Figure3
PW07083ST	70	36V-72V	20/13	200	30.8	1:0.667:0.467	Figure4
PW07084ST	42	9V-36V	21/12	250	23.7	1:1:0.55	Figure4
PW07085ST	40	41V-56V	5.0/12	200	25	1:0.2:0.5	Figure4
PW07086ST	106	40V-72V	3.3/3.3/12	200	40.5	1:0.33:0.33:0.5	Figure5
PW07087ST	57	36V-72V	19-31/12	200	58	1:0.74:0.47	Figure4

### Dimension & Footprint (UNIT:mm)



SUGGESTED PAD LAYOUT

## EFD25 SERIES SMT POWER TRANSFORMER MODULES

### SCHEMATICS

Figure1

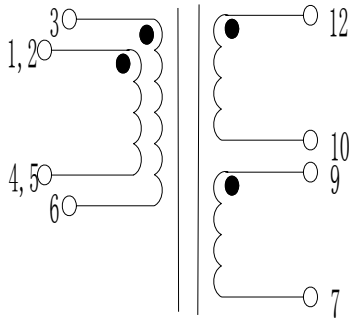


Figure3

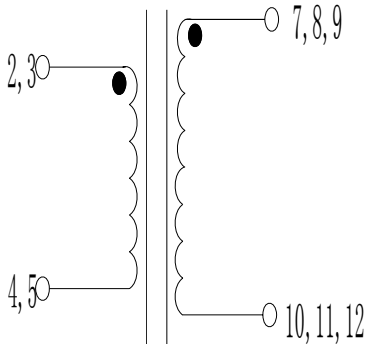


Figure5

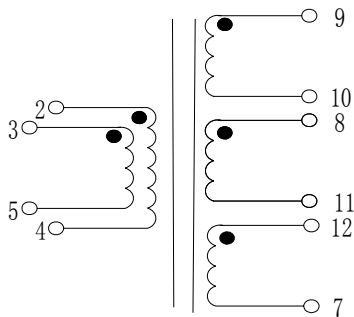


Figure2

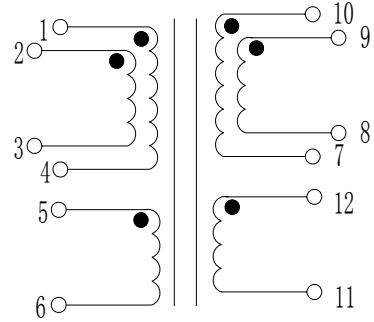


Figure4

