



Champs Technologies

RoHS
Compliant

- Champs '40' Series -- Power Rating to 150W Forward Topology || 300W PSFB Topology
- Height 7.4mm to 9.8mm | Footprint: 23.4mm x 20.1mm Max
- Frequency Range 100 KHz to 800 KHz Typical | Dielectric Isolation: 1750 Vdc Basic

Electrical Specifications @25C -- Rated Temperature [Inclusive of Temp Rise] -55°C to +130°C									
Part Number	Turns			Primary Induct. (µH Min)	Leakage Induct. (µH Nom)	DCR (mΩ Nom)			Sch.
	PRI. A	PRI. B	Sec.			PRI. A	PRI. B	Sec.	
Double Interleave Designs					Max Ht 9.8 mm				
40R2-3444	3T	4T	4T 1T:1T 1T:1T	117	0.100	5	8	4.00	A1
40R2-4444	4T	4T		153	0.100	8	8		
40R2-4544	4T	5T		194	0.100	8	14		
40R2-5544	5T	5T		240	0.150	14	14		
40R2-5644	5T	6T		290	0.150	14	19		
40R2-6644	6T	6T		345	0.150	19	19		
40R2-3411	3T	4T	1T & 1T	117	0.100	5	8	0.6 & 0.6	A2
40R2-4411	4T	4T		153	0.100	8	8		
40R2-4511	4T	5T		194	0.100	8	14		
40R2-5511	5T	5T		240	0.150	14	14		
40R2-5611	5T	6T		290	0.150	14	19		
40R2-6611	6T	6T		345	0.150	19	19		
40R2-3421	3T	4T	2T & 1T	117	0.100	5	8	1.7 & 0.6	A3
40R2-4421	4T	4T		153	0.100	8	8		
40R2-4521	4T	5T		194	0.100	8	14		
40R2-5521	5T	5T		240	0.150	14	14		
40R2-5621	5T	6T		290	0.150	14	19		
40R2-6621	6T	6T		345	0.150	19	19		
40R2-4431	4T	4T	3T&1T	153	0.100	8	8	5 & 0.6	A3
40R2-4531	4T	5T		194	0.100	8	14		

Notes: Inductance is measured with both primary windings connected in series(2 to 5, with 3 and 4 shorted). Leakage Inductance is measured [2-5, series connected Primary] , with secondaries 7 thru 11 shorted.



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Electrical Specifications @25C -- Rated Temperature [Inclusive of Temp Rise] -55°C to +130°C

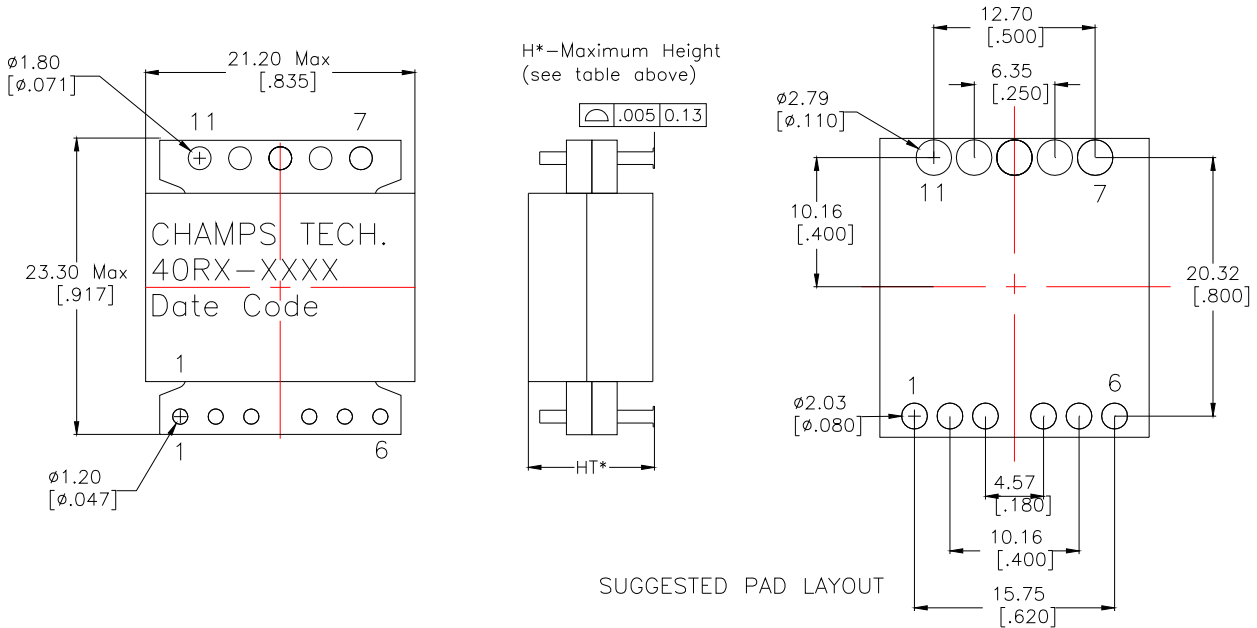
Part Number	Turns			Primary* Induct. (μH Min)	Leakage Induct. (μH Nom)	DCR (mΩ Nom)			Sch.
	PRI. A	PRI. B	Sec.			PRI. A	PRI. B	Sec.	
Single Interleave Designs									
Max Ht 7.4 mm									
40R1-3444	3T	4T	4T	117	0.15	9	15	7.00	A1
40R1-4444	4T	4T		153	0.20	15	15		
40R1-4544	4T	5T		194	0.25	15	26		
40R1-5544	5T	5T		240	0.30	26	26		
40R1-5644	5T	6T		290	0.35	26	36		
40R1-6644	6T	6T		345	0.40	36	36		
40R1-3411	3T	4T	1T & 1T	117	0.15	9	15	1 & 1	A2
40R1-4411	4T	4T		153	0.20	15	15		
40R1-4511	4T	5T		194	0.25	15	26		
40R1-5511	5T	5T		240	0.30	26	26		
40R1-5611	5T	6T		290	0.35	26	36		
40R1-6611	6T	6T		345	0.40	36	36		
40R1-3421	3T	4T	2T & 1T	117	0.15	9	15	4 & 1	A3
40R1-4421	4T	4T		153	0.20	15	15		
40R1-4521	4T	5T		194	0.25	15	26		
40R1-5521	5T	5T		240	0.30	26	26		
40R1-5621	5T	6T		290	0.35	26	36		
40R1-6621	6T	6T		345	0.40	36	36		
40R1-4431	4T	4T	3T&1T	153	0.20	15	15	9 & 1	A3
40R1-4531	4T	5T		194	0.30	15	26		

Notes: Inductance is measured with both primary windings connected in series(2 to 5, with 3 and 4 shorted). Leakage Inductance is measured with Primaries [2-5] in series and secondaries 7 thru 11 shorted.



Champs Technologies

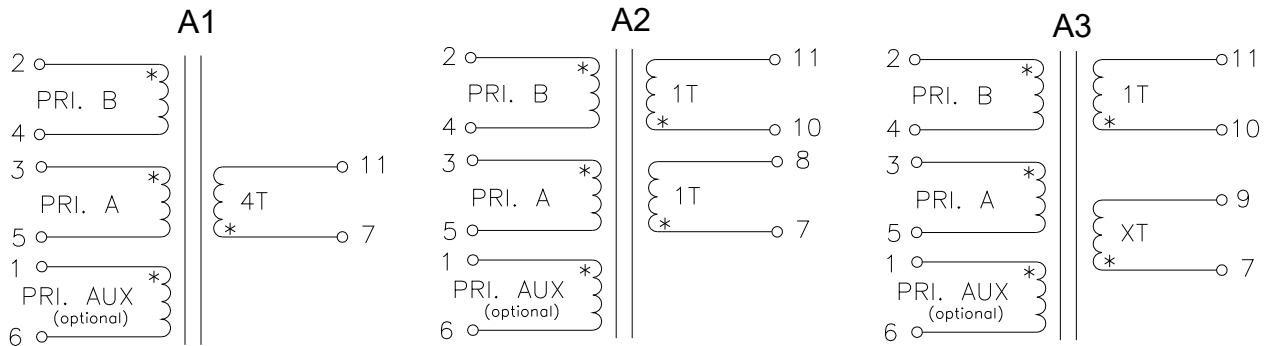
RoHS
Compliant



Champs '40' Series Cross Ref to Pulse PA08 Series					
40R2-4444	PA0801	40R2-4411	PA0806	40R2-4421	PA0811
40R2-4544	PA0802	40R2-4511	PA0807	40R2-4521	PA0812
40R2-5544	PA0803	40R2-5511	PA0808	40R2-5521	PA0813
40R2-5644	PA0804	40R2-5611	PA0809	40R2-5621	PA0814
40R2-6644	PA0805	40R2-6611	PA0810	40R2-6621	PA0815

Champs offers '40' Series in many non-standard turns configurations not shown or cross-ref.

Schematics





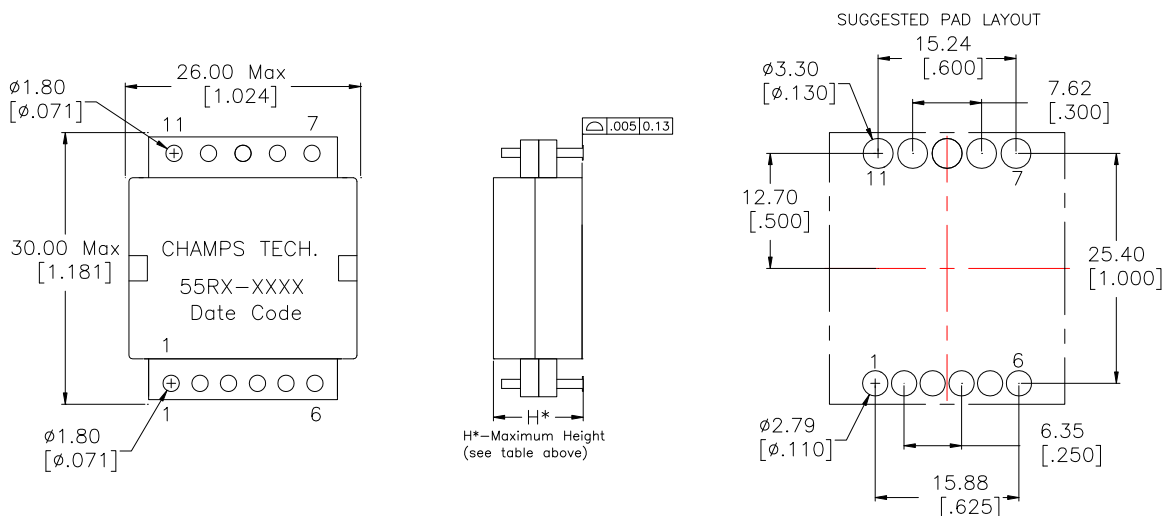
Champs Technologies

RoHS
Compliant

- '55' Series -- Power Rating to 350W Forward Topology || 650W PSFB Topology
- Height 7.4mm to 10.2mm | Footprint: 30mm x 26mm Max
- Frequency Range 100 KHz to 800 KHz Typical | Dielectric Isolation: 1750 Vdc Basic

Electrical Specifications @25C -- Rated Temperature [Inclusive of Temp Rise] -55°C to +130°C									
Part Number	Turns			Primary* Induct. (μH Min)	Leakage Induct. (μH Nom)	DCR (mΩ Nom)			Sch.
	PRI. A	PRI. B	Sec.			PRI. A	PRI. B	Sec.	
Double Interleave Designs									
Max Ht 10.2mm									
55R2-4444	4T	4T	4T 1T & 1T 1T & 1T	216	0.100	7	7	3.50	A1
55R2-5544	5T	5T		340	0.150	12	12		
55R2-6644	6T	6T		480	0.180	17	17		
55R2-7744	7T	7T		660	0.250	25	25		
55R2-8844	8T	8T		860	0.280	32	32		
55R2-4411	4T	4T	1T & 1T	216	0.100	7	7	0.45 & 0.45	A2
55R2-5511	5T	5T		340	0.150	12	12		
55R2-6611	6T	6T		480	0.180	17	17		
55R2-7711	7T	7T		660	0.250	25	25		
55R2-8811	8T	8T		860	0.280	32	32		

Notes: *Inductance is measured with both primary windings connected in series (2 to 5, with 3 and 4 shorted). Leakage Inductance is measured with both primary windings connected in series (2-5 w/ 3,4 connected) and secondaries (7 thru 11) shorted





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RoHS
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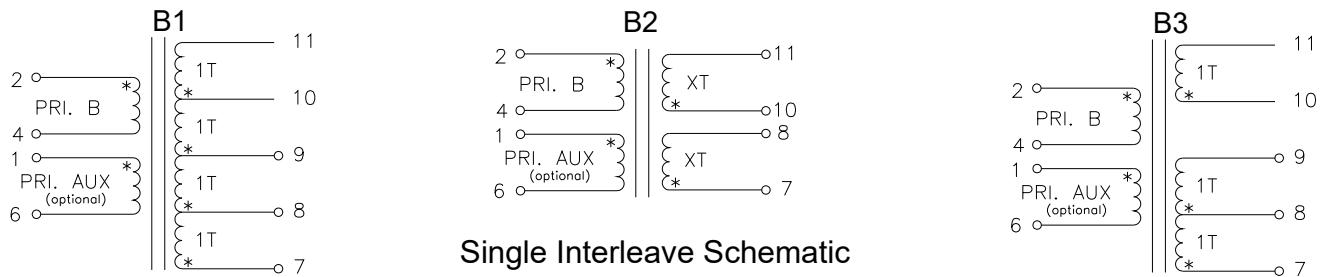
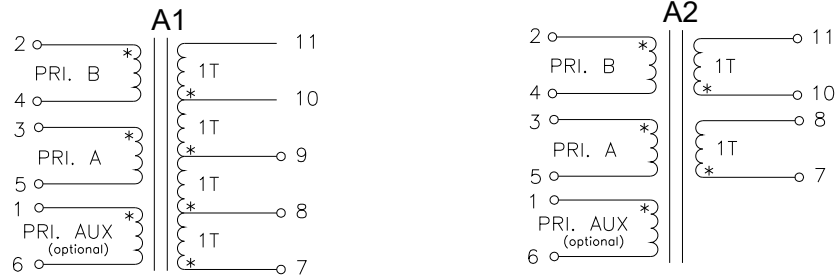
Electrical Specifications @25C -- Rated Temperature [Inclusive of Temp Rise] -55°C to +130°C

Part Number	Turns		Primary* Induct. (μH Min)	Leakage Induct. (μH Nom)	DCR (mΩ Nom)		Sch.
	PRI	Sec.			PRI	Sec.	
Single Interleave Designs				Max Ht 7.4 mm			
55R1-4444	4T	4T 1T&1T 1T&1T	54	0.15	7	7.00	B1
55R1-5544	5T		85	0.18	12		
55R1-6644	6T		120	0.22	17		
55R1-7744	7T		165	0.28	25		
55R1-8844	8T		215	0.33	32		
55R1-4477	4T	7T&7T	54	0.15	7	46 & 46	B2
55R1-5577	5T		85	0.18	12		
55R1-6677	6T		120	0.22	17		
55R1-7777	7T		165	0.28	25		
55R1-8877	8T		215	0.33	32		
55R1-4411	4T	1T&1T	54	0.15	7	0.9 & 0.9	B2
55R1-5511	5T		85	0.18	12		
55R1-6611	6T		120	0.22	17		
55R1-7711	7T		165	0.28	25		
55R1-8811	8T		215	0.33	32		
55R1-4421	4T	2T&1T	54	0.15	7	4 & 1	B3
55R1-5521	5T		85	0.18	12		
55R1-6621	6T		120	0.22	17		
55R1-7721	7T		165	0.28	25		
55R1-8821	8T		215	0.33	32		

Notes: *Inductance is measured with both primary windings connected in series(2 to 5, with 3,4 shorted). Leakage Inductance is measured with both primary windings connected in series (2-5) and secondaries (7 thru 11) shorted.



Double Interleave Schematic

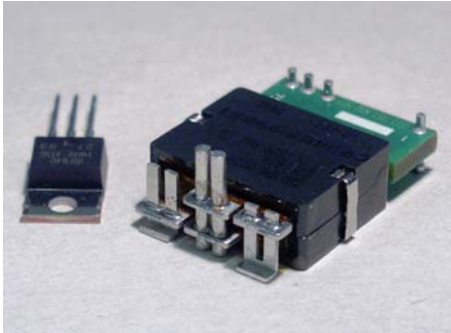


Single Interleave Schematic

Champs Technologies to Pulse PA09 Cross Reference					
Champs PN	Pulse PN	Champs PN	Pulse PN	Champs PN	Pulse PN
55R2-4444	PA0901	55R1-4444	PA0930	55R1-4411	PA0938
55R2-5544	PA0903	55R1-5544	PA0931	55R1-5511	PA0939
55R2-6644	PA0905	55R1-6644	PA0932	55R1-6611	PA0940
55R2-7744	PA0907	55R1-7744	PA0933	55R1-7711	PA0941
55R2-8844	PA0909	55R1-8844	PA0946	55R1-8811	PA0948
55R2-4411	PA0908	55R1-4477	PA0934	55R1-4421	PA0942
55R2-5511	PA0910	55R1-5577	PA0935	55R1-5521	PA0943
55R2-6611	PA0912	55R1-6677	PA0936	55R1-6621	PA0944
55R2-7711	PA0914	55R1-7777	PA0937	55R1-7721	PA0945
55R2-8811	PA0916	55R1-8877	PA0947	55R1-8821	PA0949
Champs offers '55' Series in many non-standard turns configurations not shown or cross-ref.					



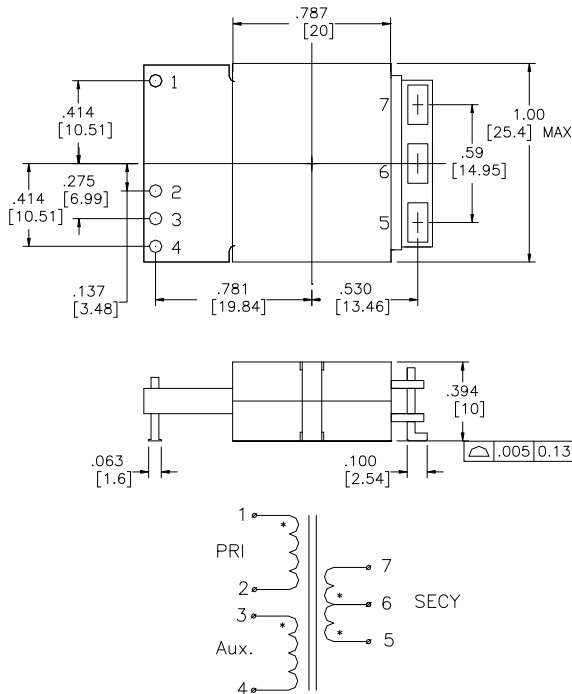
Champs Technologies USA PL58-AC Series "Off-Line"



- Off-Line Converter Apps: Forward w/ Active or Resonant Reset | PSFB | LLC | Asymmetrical Half-Bridge
- Power Rating 100-300W Typical w/ Forward Topology & 150-600W Utilizing PSFB Topology
- Frequency Range: 100 Khz to 1 Mhz
- Low Loss | Hi-Perm | Self Shielding **RoHS Compliant**

Part #	Pri T	SecT	Pri Induct μH (Min)	Pri DCR mΩ	Sec DCR mΩ	Leakage L (μH)	Max Height (mm)
PL58AC-801	28	1T	2600	160	0.25	0.60	10.2
PL58AC-802	28	1T 1T	2600	160	0.50 0.50	0.60	10.2
PL58AC-803	22	1T	1600	140	0.25	0.48	10.2
PL58AC-804	22	1T 1T	1600	140	0.50 0.50	0.48	10.2
PL58AC-805	20	1T	1360	120	0.25	0.43	10.2
PL58AC-806	20	1T 1T	1360	120	0.50 0.50	0.43	10.2
PL58AC-807	18	1T	1100	100	0.25	0.40	10.2

Notes: Operating Temp. -50°C to +130°C | Primary to Secondary Isolation 3000 Vrms



•Mechanical Configuration: SMT | Thru-Hole | Pad-To-Pad | Embedded Multi-Layer in PCB. Contact factory for available options and technical support.

•Thermal Impedance: ~20°C/W Natural Convection | ~8°C/W Heat Sink 1 Side (Contact Factory)

•Reference Design for Telecom Application ¼ "Brick". Forward Converter Topology Active Clamp operating at 68% duty at 300 Khz supplies 200W – 3.3dcV nom @33A

•Reference Design for OEM -- Application IBA to distribute +12V from PFC Off line Input Source. PSFB Bridge Converter Topology operating at 90% duty at 250 Khz supplies 360W (+12V @30A) with Vin ranging from 200 Vdc min to 420 Vdc max. Transformer loss was ~4W @85°C pcb heat sink -- <125°C Hot Spot.