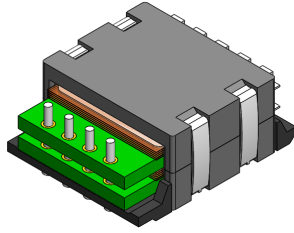


HIGH FREQUENCY PLANAR TRANSFORMERS

Ruggedized



- ⦿ Power Rating up to 1000W
- ⦿ Frequency Range: 100kHz to 700kHz
- ⦿ Isolation (Primary to Secondary & Core): 3000VAC
- ⦿ Package: SMD or THT
- ⦿ Operating & Storage Temperature: -55°C to +130°C
- ⦿ Lead Finish: SnPb
- ⦿ Moisture Sensitivity Level: 1

Electrical Specifications @ 25°C

Part Number	Turns Ratio (±5%)		ET ³ (V*μsec) MAX	Primary ⁴ Inductance (μH MIN)	Leakage ⁵ Inductance (μH MAX)	DCR (mΩ MAX)		
	Primary	Secondary	(1-4)			Primary A	Primary B	Secondary
SCHEMATIC A1 - SMD Package								
PL10510	6T&6T	4T (1T:1T:1T:1T)	440	576	0.60	18	18	1.5
PL10511	6T&8T		510	784	0.80	18	24	1.5
PL10512	8T&8T		580	1024	1.10	24	24	1.5
PL10513	8T&10T		650	1296	1.40	24	30	1.5
PL10514	10T&10T		730	1600	1.80	30	30	1.5
PL10515	10T&12T		800	1936	2.20	30	36	1.5
PL10516	12T&12T		870	2304	2.70	36	36	1.5
SCHEMATIC A2 - SMD Package								
PL10517	6T&6T	2T (1T:1T)	440	576	0.60	18	18	0.50 & 0.50
PL10518	6T&8T		510	784	0.80	18	24	0.50 & 0.50
PL10519	8T&8T		580	1024	1.10	24	24	0.50 & 0.50
PL10520	8T&10T		650	1296	1.40	24	30	0.50 & 0.50
PL10521	10T&10T		730	1600	1.80	30	30	0.50 & 0.50
PL10522	10T&12T		800	1936	2.20	30	36	0.50 & 0.50
PL10523	12T&12T		870	2304	2.70	36	36	0.50 & 0.50
SCHEMATIC A1 - THT Package								
PL10524	6T&6T	4T (1T:1T:1T:1T)	440	576	0.60	18	18	1.5
PL10525	6T&8T		510	784	0.80	18	24	1.5
PL10526	8T&8T		580	1024	1.10	24	24	1.5
PL10527	8T&10T		650	1296	1.40	24	30	1.5
PL10528	10T&10T		730	1600	1.80	30	30	1.5
PL10529	10T&12T		800	1936	2.20	30	36	1.5
PL10530	12T&12T		870	2304	2.70	36	36	1.5
SCHEMATIC A2 - THT Package								
PL10531	6T&6T	2T (1T:1T)	440	576	0.60	18	18	0.50 & 0.50
PL10532	6T&8T		510	784	0.80	18	24	0.50 & 0.50
PL10533	8T&8T		580	1024	1.10	24	24	0.50 & 0.50
PL10534	8T&10T		650	1296	1.40	24	30	0.50 & 0.50
PL10535	10T&10T		730	1600	1.80	30	30	0.50 & 0.50
PL10536	10T&12T		800	1936	2.20	30	36	0.50 & 0.50
PL10537	12T&12T		870	2304	2.70	36	36	0.50 & 0.50

NOTES:

1. Add suffix "NL" for RoHS compliant version; i.e. PL10501 becomes **PL10510NL**.
2. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. **PL10510T**.
3. The maximum volt-μsec rating limits the peak flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications a maximum volt-μsec of two times this rating is acceptable (i.e.: 2 * (volt*μsec rating) Volt*μsec = (voltage applied to the primary) * dutycycle / Frequency = V * alpha / Freq_Hz = V * μsec.
4. Inductance is measured at 100KHz, 0.1Vrms across terminals 1-4 with terminals 2 and 3 connected together.
5. Leakage Inductance is measured at 100KHz, 0.1Vrms across terminals 1-4 with terminals 2 and 3 connected together and secondaries shorted.

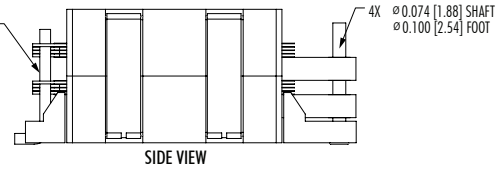
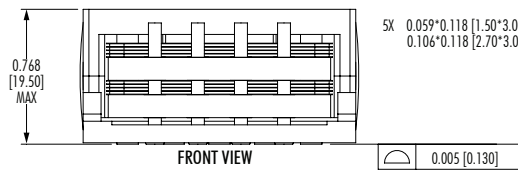
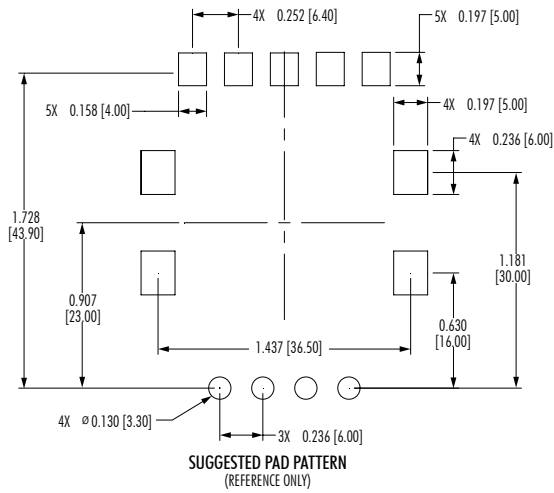
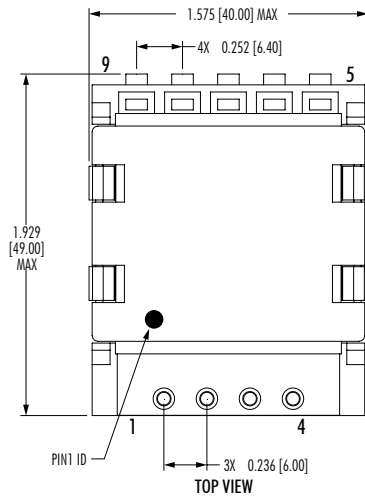


PL105XX (SMD)

Mechanicals

Dimensions: inch [mm]

Tolerance (unless otherwise specified): ± 0.020 [0.50]

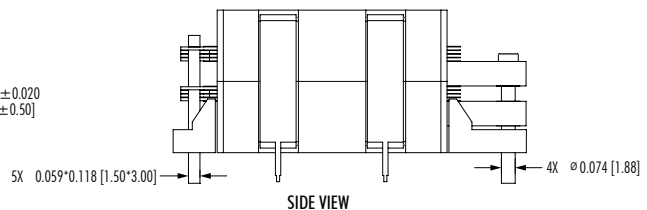
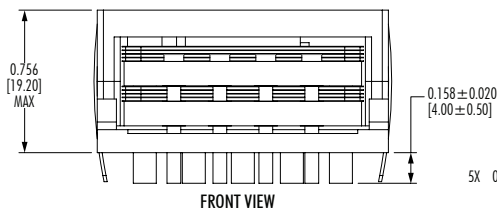
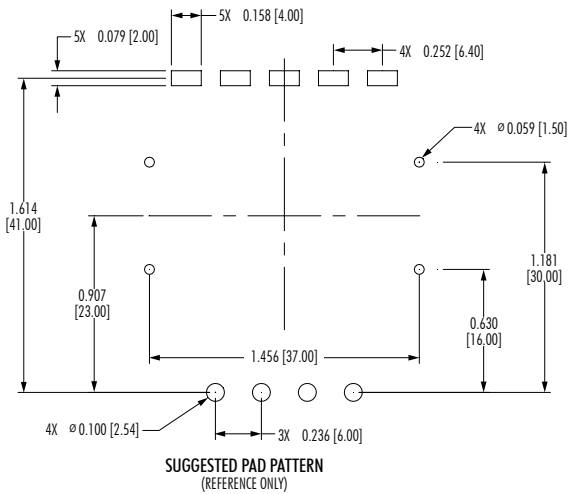
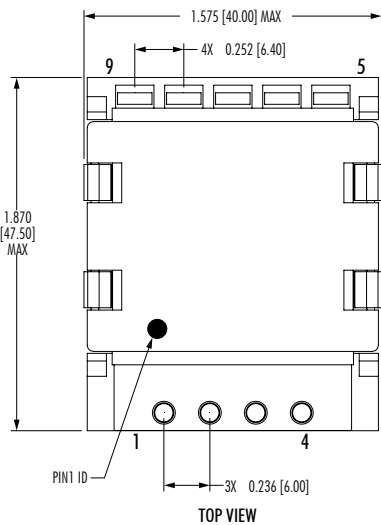


Mechanicals

Dimensions: inch [mm]

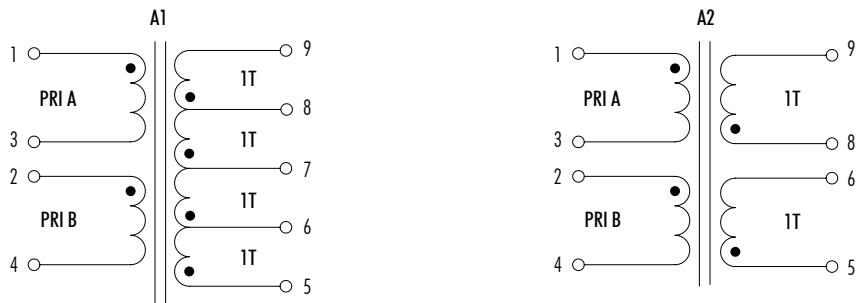
Tolerance (unless otherwise specified): ± 0.020 [0.50]

PL105XX (THT)

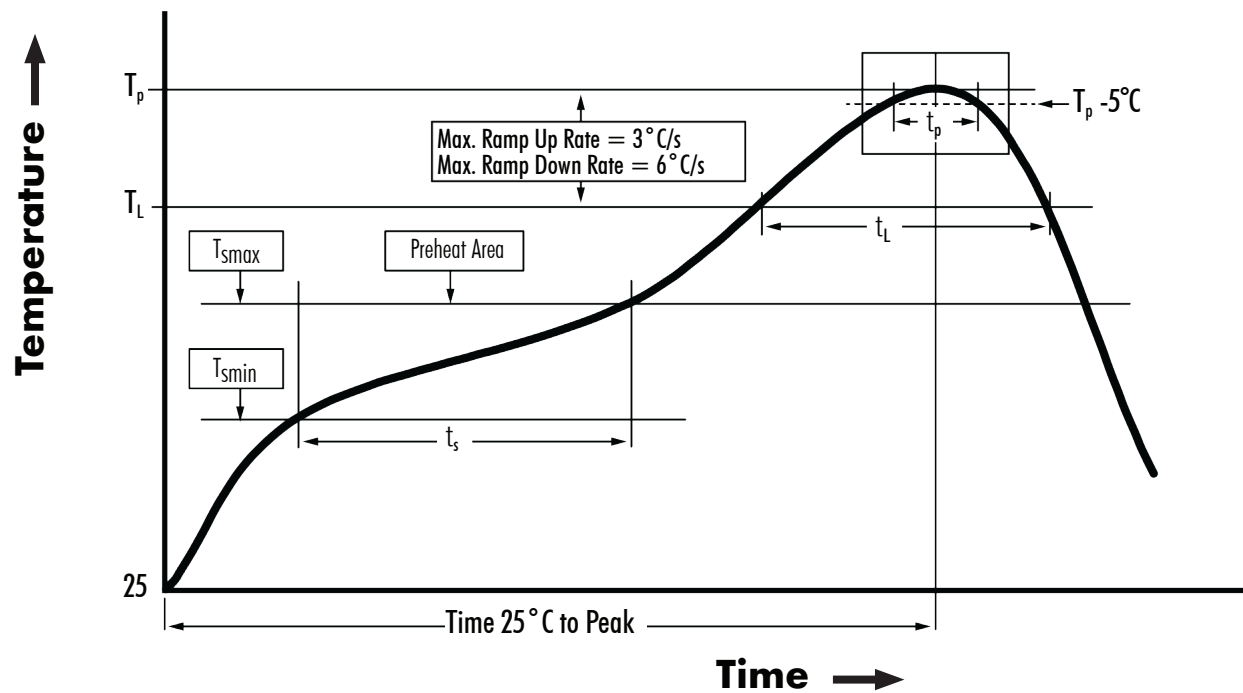


Double Interleave Schematics

PL105XX



Recommended Reflow Profile (Based on J-STD-020D)



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°C)	T_P (°C MAX)	t_s (s)	t_L (s)	t_p (s MAX)	Ramp-up rate (T_L to T_P)	Ramp-down rate (T_P to T_L)	Time 25°C to peak temperature (s MAX)
Tin/Lead Profile									
100	150	183	220	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360
Non-Lead Profile									
150	200	217	245	60 - 120	60 - 150	30	3°C/s MAX	6°C/s MAX	480

NOTES:

1. All temperatures measured on the package leads.
2. Maximum number of reflow cycles not to exceed 2.



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M570 (18APR25)