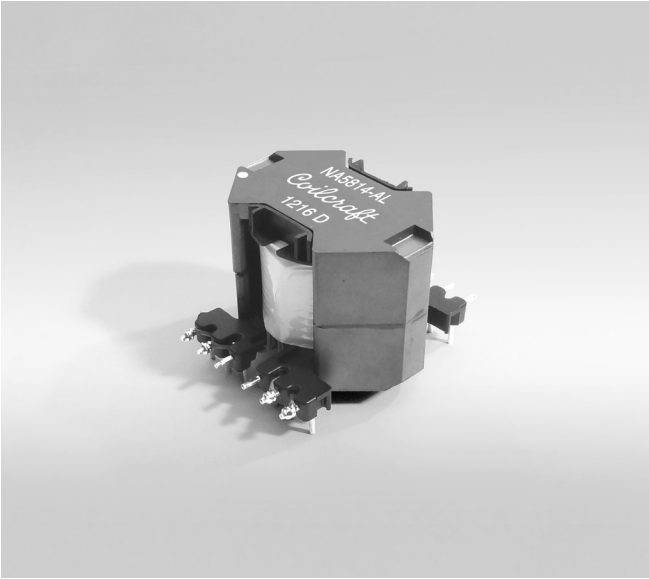
RoHS/ REACH COMPLIANT

Flyback Transformer

For Microchip AN1444 Microinverter



- Developed for the Microchip AN1444 Grid-Connected Solar Microinverter
- Designed to operate at 57 kHz with 20 – 55 Vdc input
- Rectified sine wave output
- Maximum power: 100 W
- 3000 Vrms, one minute isolation primary to secondary
- 1500 Vrms, one minute isolation windings to core

Core material Ferrite

Terminations RoHS tin-silver-copper over tin over copper-clad steel.

Weight 90 g

Ambient temperature –40°C to +85°C

Storage temperature Component: –40°C to +85°C. Tray packaging: –40°C to +80°C

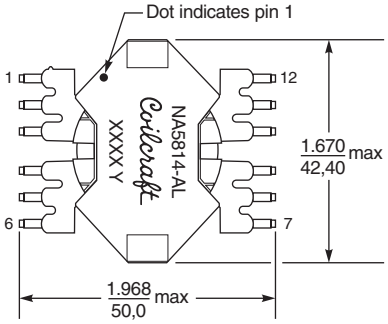
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

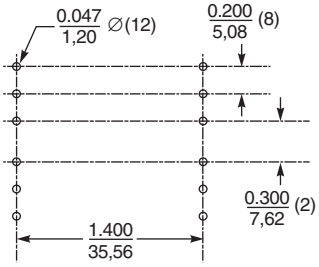
Packaging 20 parts per tray

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

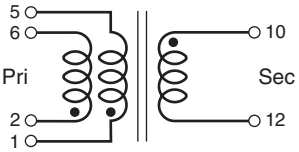
Part number	L at 0 A[1] ±10% (µH)	L at Ipk[2] min (µH)	DCR max (Ohms)[3] pri	DCR max (Ohms)[3] sec	Leakage L[4] max (µH)	Turns ratio pri : sec	Ipk[2] (A)	Output (Vrms)
NA5814-AL	55.0	44.0	0.0475	0.360	1.45	1 : 7	13.6	230
NA5919-AL	55.0	38.5	0.0480	0.110	1.58	1 : 4	13.6	110

1. Inductance is for the primary, measured at 150 kHz, 1.0 Vrms, 0 Adc.
2. Ipk is the peak current drawn at minimum input voltage.
3. DCR for the primary is with windings connected in parallel
4. Leakage inductance measured on the primary winding with the secondary pins shorted.
5. Ambient operating temperature range –40°C to +85°C.
6. Electrical specifications at 25°C.

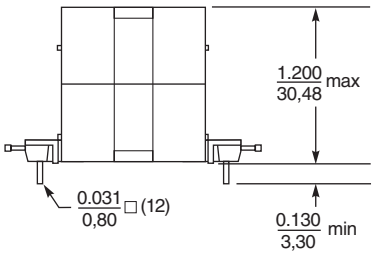




Recommended Board Layout



Primary windings to be connected in parallel on the PC board.



Dimensions are in inches / mm

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