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)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging 20 parts per tray
PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

| Part number |  |  |  |  |  |  |  |
|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| NA5814-AL   | 55.0            | 44.0            | 0.0475          | 0.360           | 1.45            | 1:7             |
| NA5919-AL   | 55.0            | 38.5            | 0.0480          | 0.110           | 1.58            | 1:4             |

1. Inductance is for the primary, measured at 150 kHz, 1.0 Vrms, 0 Adc.
2. Ip 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.

Dimensions are in inches and mm.

Recommended Board Layout

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

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This product may not be used in medical or high risk applications without prior coilcraft approval.
Specification subject to change without notice.
Please check web site for latest information.

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