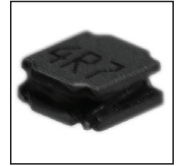


FEATURES

- SHIELDED POWER INDUCTOR
- HIGH CURRENT (UP TO 13.8 AMPS)
- SURFACE MOUNTABLE CONSTRUCTION
- HIGH INDUCTANCE (UP TO 330μH)
- TAPED AND REELED FOR AUTOMATIC INSERTION

RoHS Compliant
includes all homogeneous materials



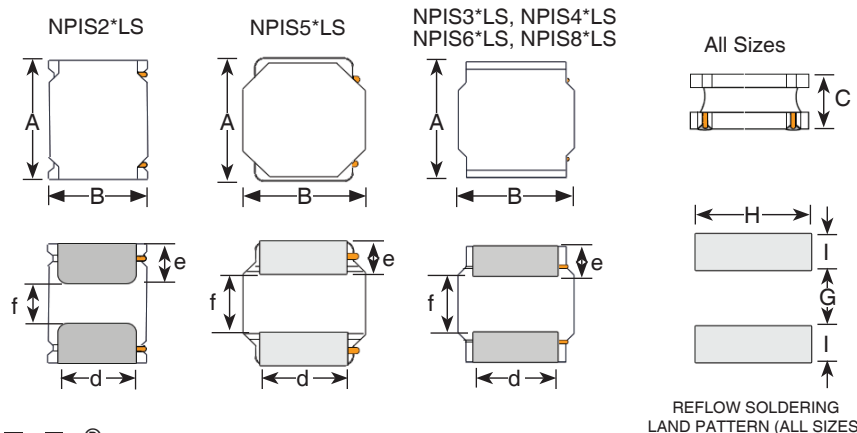
*See Part Number System for Details

CHARACTERISTICS

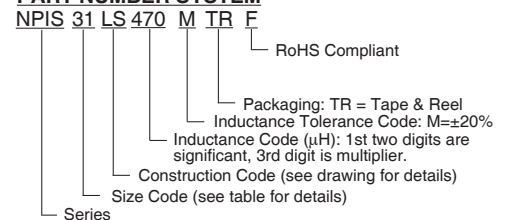
| | | | | | |
|-------------------------------------|--|-------------|-------------|--------------|--------------|
| Case Size | NPIS20LS | NPIS21LS | NPIS31LS | NPIS32LS | NPIS35LS |
| Inductance Range | 0.47 ~ 10μH | 0.47 ~ 22μH | 1.0 ~ 62μH | 0.82 ~ 100μH | 1.0 ~ 68μH |
| Case Size | NPIS41LS | NPIS48LS | NPIS42LS | NPIS43LS | NPIS52LS |
| Inductance Range | 0.82 ~ 100μH | 1.0 ~ 220μH | 1.0 ~ 100μH | 0.91 ~ 120μH | 0.47 ~ 100μH |
| Case Size | NPIS54LS | NPIS62LS | NPIS63LS | NPIS65LS | NPIS84LS |
| Inductance Range | 1.0 ~ 100μH | 0.5 ~ 22μH | 1.5 ~ 100μH | 0.82 ~ 330μH | 0.82 ~ 330μH |
| Ambient Operating Temperature Range | -40°C ~ +125°C (including self-heating)* | | | | |
| Temperature Rise at Irms | Maximum +40°C Temperature Rise | | | | |
| Inductance Change at Isat | Maximum -30% Inductance Drop From Initial Measured Value | | | | |
| Inductance Tolerance | ±20% (M), ±30% (Y) | | | | |
| Resistance to Solder Heat | +260°C for 10 seconds | | | | |

DIMENSIONS (mm)

| Series | A | B | C | d | e | f | G | I | H |
|----------|-----------|-----------|----------|-----------|------------|------------|-----|------|-----|
| NPIS20LS | 2.5 ± 0.1 | 2.0 ± 0.1 | 1.0 Max. | 1.5 ± 0.2 | 0.80 ± 0.2 | 0.80 ± 0.2 | 0.8 | 0.85 | 2 |
| NPIS21LS | 2.5 ± 0.1 | 2.0 ± 0.1 | 1.2 Max. | 1.5 ± 0.2 | 0.80 ± 0.2 | 0.80 ± 0.2 | | | |
| NPIS31LS | 3.0 ± 0.2 | 3.0 ± 0.2 | 1.0 Max. | 2.5 ± 0.2 | 0.75 ± 0.2 | 1.5 ± 0.2 | | | |
| NPIS32LS | 3.0 ± 0.2 | 3.0 ± 0.2 | 1.2 Max. | 2.5 ± 0.2 | 0.75 ± 0.2 | 1.5 ± 0.2 | 1.5 | 0.8 | 2.7 |
| NPIS35LS | 3.0 ± 0.2 | 3.0 ± 0.2 | 1.5 Max. | 2.5 ± 0.2 | 0.75 ± 0.2 | 1.5 ± 0.2 | | | |
| NPIS41LS | 4.0 ± 0.2 | 4.0 ± 0.2 | 1.2 Max. | 3.3 ± 0.2 | 0.95 ± 0.2 | 2.1 ± 0.2 | | | |
| NPIS48LS | 4.0 ± 0.2 | 4.0 ± 0.2 | 1.8 Max. | 3.3 ± 0.2 | 0.95 ± 0.2 | 2.1 ± 0.2 | 1.9 | 1.1 | 3.4 |
| NPIS42LS | 4.0 ± 0.2 | 4.0 ± 0.2 | 2.0 Max. | 3.3 ± 0.2 | 0.95 ± 0.2 | 2.1 ± 0.2 | | | |
| NPIS43LS | 4.0 ± 0.2 | 4.0 ± 0.2 | 3.0 Max. | 3.3 ± 0.2 | 0.95 ± 0.2 | 2.1 ± 0.2 | | | |
| NPIS52LS | 5.0 ± 0.2 | 5.0 ± 0.2 | 2.0 Max. | 4.0 ± 0.2 | 1.25 ± 0.2 | 2.5 ± 0.2 | 2.3 | 1.4 | 4.2 |
| NPIS54LS | 5.0 ± 0.2 | 5.0 ± 0.2 | 4.0 Max. | 4.0 ± 0.2 | 1.25 ± 0.2 | 2.5 ± 0.2 | | | |
| NPIS62LS | 6.0 ± 0.3 | 6.0 ± 0.3 | 2.0 Max. | 4.9 ± 0.3 | 1.55 ± 0.3 | 2.9 ± 0.3 | | | |
| NPIS63LS | 6.0 ± 0.3 | 6.0 ± 0.3 | 2.8 Max. | 4.9 ± 0.3 | 1.55 ± 0.3 | 2.9 ± 0.3 | 2.8 | 1.7 | 5.7 |
| NPIS65LS | 6.0 ± 0.3 | 6.0 ± 0.3 | 4.5 Max. | 4.9 ± 0.3 | 1.55 ± 0.3 | 2.9 ± 0.3 | | | |
| NPIS84LS | 8.0 ± 0.3 | 8.0 ± 0.3 | 4.2 Max. | 6.3 ± 0.3 | 2.00 ± 0.3 | 4.0 ± 0.3 | | | |



PART NUMBER SYSTEM

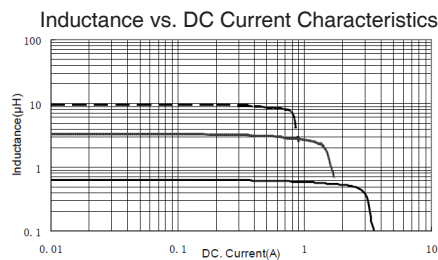
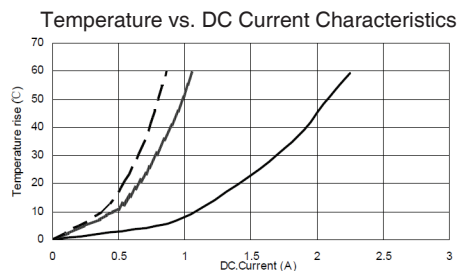


*Specifications reflect recent product changes. For more information refer to PCN announcement [Link]

NPIS20LS Size

| Series | Standard Values - Case Size 20 (2.0 x 2.5 x 1.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|-------------------|------------------|------------------|-------------------------|
| | Inductance (μH) | Tolerance | Test Conditions | Max. DCR (Ω) ±30% | Max. Isat (Amps) | Typ. Isat (Amps) | I _{rms} (Amps) |
| NPIS20LSR47YTRF | 0.47 | ±30% | 100KHz, 1V | 0.061 | 2.5 | 3.35 | 2.35 |
| NPIS20LSR68YTRF | 0.68 | ±30% | 100KHz, 1V | 0.081 | 2.2 | 2.75 | 2 |
| NPIS20LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.117 | 1.85 | 2.2 | 1.65 |
| NPIS20LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.198 | 1.8 | 2.1 | 1.3 |
| NPIS20LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.226 | 1.2 | 1.6 | 1.2 |
| NPIS20LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.355 | 1.05 | 1.3 | 0.9 |
| NPIS20LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.61 | 0.95 | 1.15 | 0.7 |
| NPIS20LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.971 | 0.78 | 0.92 | 0.59 |
| NPIS20LS100MTRF | 10 | ±20% | 100KHz, 1V | 1.183 | 0.65 | 0.78 | 0.5 |

Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS21LS Size

| Series | Standard Values - Case Size 21 (2.0 x 2.5 x 1.2mm) | | | | | | |
|-----------------|--|-----------|-----------------|-------------------|------------------|------------------|-------------------------|
| | Inductance (μH) | Tolerance | Test Conditions | Max. DCR (Ω) ±30% | Max. Isat (Amps) | Typ. Isat (Amps) | I _{rms} (Amps) |
| NPIS21LSR47YTRF | 0.47 | ±30% | 100KHz, 1V | 0.05 | 3.6 | 4.03 | 2.27 |
| NPIS21LSR68YTRF | 0.68 | ±30% | 100KHz, 1V | 0.088 | 3.06 | 3.43 | 1.73 |
| NPIS21LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.102 | 2.68 | 3 | 1.58 |
| NPIS21LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.119 | 2.38 | 2.67 | 1.46 |
| NPIS21LS1R5_TRF | 1.5 | ±20%, 30% | 100KHz, 1V | 0.136 | 2.24 | 2.51 | 1.4 |
| NPIS21LS2R2MTRF | 2.2 | ±20% | 100KHz, 1V | 0.198 | 1.85 | 2.07 | 1.15 |
| NPIS21LS2R7MTRF | 2.7 | ±20% | 100KHz, 1V | 0.222 | 1.71 | 1.92 | 1.09 |
| NPIS21LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.24 | 1.61 | 1.8 | 1.04 |
| NPIS21LS3R6MTRF | 3.6 | ±20% | 100KHz, 1V | 0.322 | 1.48 | 1.66 | 0.9 |
| NPIS21LS4R3MTRF | 4.3 | ±20% | 100KHz, 1V | 0.348 | 1.37 | 1.53 | 0.87 |
| NPIS21LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.378 | 1.18 | 1.32 | 0.84 |
| NPIS21LS5R1MTRF | 5.1 | ±20% | 100KHz, 1V | 0.378 | 1.18 | 1.32 | 0.84 |
| NPIS21LS5R6MTRF | 5.6 | ±20% | 100KHz, 1V | 0.401 | 1.13 | 1.26 | 0.81 |
| NPIS21LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.5 | 1.03 | 1.16 | 0.73 |
| NPIS21LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.536 | 0.98 | 1.09 | 0.69 |
| NPIS21LS7R5MTRF | 7.5 | ±20% | 100KHz, 1V | 0.564 | 0.97 | 1.09 | 0.68 |
| NPIS21LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.607 | 0.98 | 1.1 | 0.65 |
| NPIS21LS9R1MTRF | 9.1 | ±20% | 100KHz, 1V | 0.667 | 0.95 | 1.06 | 0.62 |

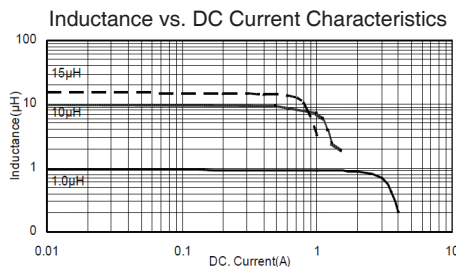
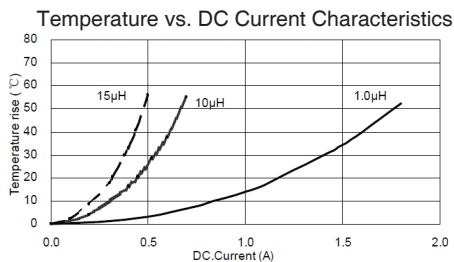
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS21LS Size (Continued)

| Series | Standard Values - Case Size 21 (2.0 x 2.5 x 1.2mm) | | | | | | |
|-----------------|--|-----------|-----------------|-------------------|------------------|------------------|-------------------------|
| | Inductance (μH) | Tolerance | Test Conditions | Max. DCR (Ω) ±30% | Max. Isat (Amps) | Typ. Isat (Amps) | I _{rms} (Amps) |
| NPIS21LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.69 | 0.88 | 0.97 | 0.62 |
| NPIS21LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.992 | 0.78 | 0.87 | 0.51 |
| NPIS21LS150MTRF | 15 | ±20% | 100KHz, 1V | 1.469 | 0.68 | 0.76 | 0.42 |
| NPIS21LS220MTRF | 22 | ±20% | 100KHz, 1V | 1.824 | 0.53 | 0.59 | 0.38 |

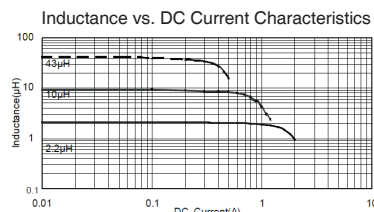
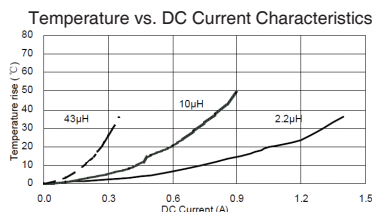
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at Isat.



NPIS31LS Size

| Series | Standard Values - Case Size 31 (3.0 x 3.0 x 1.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | I _{rms} (Amps) | SRF (MHz) |
| NPIS31LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.065 | 1.4 | 1.45 | 180 |
| NPIS31LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.08 | 1.27 | 1.3 | 120 |
| NPIS31LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.11 | 1.15 | 1.09 | 100 |
| NPIS31LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.13 | 1 | 1.02 | 90 |
| NPIS31LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.145 | 0.97 | 0.96 | 74 |
| NPIS31LS3R6MTRF | 3.6 | ±20% | 100KHz, 1V | 0.165 | 0.95 | 0.9 | 67 |
| NPIS31LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.225 | 0.75 | 0.77 | 59 |
| NPIS31LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.305 | 0.55 | 0.66 | 42 |
| NPIS31LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.4 | 0.55 | 0.58 | 39 |
| NPIS31LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.505 | 0.43 | 0.52 | 36 |
| NPIS31LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.61 | 0.42 | 0.47 | 30 |
| NPIS31LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.68 | 0.4 | 0.44 | 29 |
| NPIS31LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.93 | 0.35 | 0.38 | 28 |
| NPIS31LS270MTRF | 27 | ±20% | 100KHz, 1V | 1.08 | 0.3 | 0.35 | 25 |
| NPIS31LS330MTRF | 33 | ±20% | 100KHz, 1V | 1.55 | 0.29 | 0.3 | 18 |
| NPIS31LS390MTRF | 39 | ±20% | 100KHz, 1V | 1.75 | 0.28 | 0.28 | 18 |
| NPIS31LS430MTRF | 43 | ±20% | 100KHz, 1V | 1.8 | 0.23 | 0.27 | 18 |
| NPIS31LS470MTRF | 47 | ±20% | 100KHz, 1V | 1.95 | 0.22 | 0.26 | 18 |
| NPIS31LS510MTRF | 51 | ±20% | 100KHz, 1V | 2.2 | 0.21 | 0.25 | 18 |
| NPIS31LS560MTRF | 56 | ±20% | 100KHz, 1V | 2.32 | 0.21 | 0.24 | 16 |
| NPIS31LS620MTRF | 62 | ±20% | 100KHz, 1V | 2.45 | 0.2 | 0.23 | 16 |

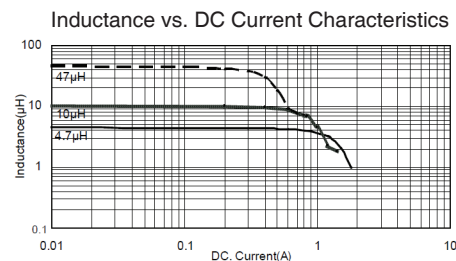
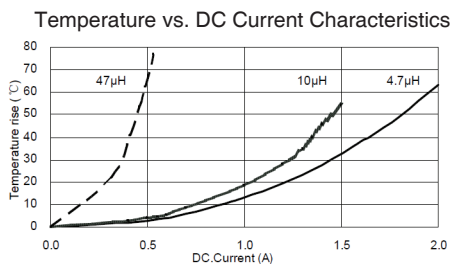
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at Isat.



NPIS32LS Size

| Series | Standard Values - Case Size 32 (3.0 x 3.0 x 1.2mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS32LSR82YTRF | 0.82 | ±30% | 100KHz, 1V | 0.03 | 2.05 | 2.47 | 180 |
| NPIS32LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.04 | 1.87 | 2.2 | 120 |
| NPIS32LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.045 | 2.22 | 2.01 | 120 |
| NPIS32LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.045 | 1.62 | 2.01 | 110 |
| NPIS32LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.055 | 1.51 | 1.84 | 90 |
| NPIS32LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.075 | 1.2 | 1.55 | 84 |
| NPIS32LS2R4YTRF | 2.4 | ±30% | 100KHz, 1V | 0.068 | 1.15 | 1.5 | 100 |
| NPIS32LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.085 | 1.14 | 1.48 | 65 |
| NPIS32LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.1 | 1.05 | 1.36 | 64 |
| NPIS32LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.12 | 0.9 | 1.24 | 61 |
| NPIS32LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.19 | 0.75 | 0.98 | 61 |
| NPIS32LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.265 | 0.6 | 0.83 | 42 |
| NPIS32LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.345 | 0.48 | 0.73 | 32 |
| NPIS32LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.36 | 0.45 | 0.71 | 27 |
| NPIS32LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.545 | 0.43 | 0.58 | 25 |
| NPIS32LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.645 | 0.42 | 0.53 | 23 |
| NPIS32LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.77 | 0.4 | 0.49 | 21 |
| NPIS32LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.875 | 0.36 | 0.46 | 18 |
| NPIS32LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.95 | 0.34 | 0.44 | 18 |
| NPIS32LS390MTRF | 39 | ±20% | 100KHz, 1V | 1.33 | 0.3 | 0.37 | 18 |
| NPIS32LS470MTRF | 47 | ±20% | 100KHz, 1V | 1.36 | 0.27 | 0.36 | 14 |
| NPIS32LS560MTRF | 56 | ±20% | 100KHz, 1V | 1.38 | 0.26 | 0.36 | 14 |
| NPIS32LS620MTRF | 62 | ±20% | 100KHz, 1V | 1.53 | 0.25 | 0.35 | 12 |
| NPIS32LS680MTRF | 68 | ±20% | 100KHz, 1V | 1.67 | 0.24 | 0.33 | 12 |
| NPIS32LS820MTRF | 82 | ±20% | 100KHz, 1V | 2.54 | 0.22 | 0.27 | 12 |
| NPIS32LS101MTRF | 100 | ±20% | 100KHz, 1V | 2.86 | 0.21 | 0.25 | 12 |

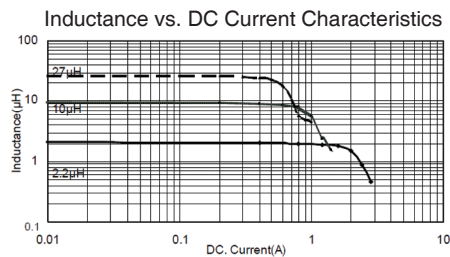
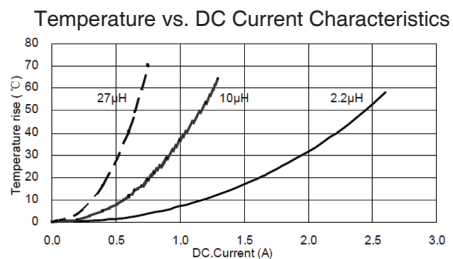
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS35LS Size

| Series | Standard Values - Case Size 35 (3.0 x 3.0 x 1.5mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS35LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.037 | 2.3 | 2.1 | 150 |
| NPIS35LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.04 | 2.21 | 1.95 | 110 |
| NPIS35LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.05 | 2.3 | 1.7 | 100 |
| NPIS35LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.05 | 1.75 | 1.7 | 92 |
| NPIS35LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.06 | 1.6 | 1.6 | 86 |
| NPIS35LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.075 | 1.52 | 1.43 | 64 |
| NPIS35LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.08 | 1.32 | 1.36 | 68 |
| NPIS35LS3R6MTRF | 3.6 | ±20% | 100KHz, 1V | 0.105 | 1.28 | 1.2 | 59 |
| NPIS35LS4R3MTRF | 4.3 | ±20% | 100KHz, 1V | 0.115 | 1.2 | 1.14 | 53 |
| NPIS35LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.125 | 1.1 | 1.09 | 46 |
| NPIS35LS5R1MTRF | 5.1 | ±20% | 100KHz, 1V | 0.125 | 1.08 | 1.09 | 49 |
| NPIS35LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.195 | 1 | 0.86 | 46 |
| NPIS35LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.2 | 0.85 | 0.85 | 39 |
| NPIS35LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.25 | 0.72 | 0.77 | 41 |
| NPIS35LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.32 | 0.7 | 0.68 | 32 |
| NPIS35LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.35 | 0.66 | 0.65 | 30 |
| NPIS35LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.43 | 0.56 | 0.59 | 23 |
| NPIS35LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.46 | 0.52 | 0.57 | 23 |
| NPIS35LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.73 | 0.48 | 0.45 | 22 |
| NPIS35LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.82 | 0.44 | 0.43 | 20 |
| NPIS35LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.995 | 0.41 | 0.39 | 14 |
| NPIS35LS430MTRF | 43 | ±20% | 100KHz, 1V | 1.06 | 0.37 | 0.37 | 16 |
| NPIS35LS470MTRF | 47 | ±20% | 100KHz, 1V | 1.25 | 0.35 | 0.35 | 14 |
| NPIS35LS560MTRF | 56 | ±20% | 100KHz, 1V | 1.28 | 0.33 | 0.34 | 13 |
| NPIS35LS620MTRF | 62 | ±20% | 100KHz, 1V | 1.43 | 0.33 | 0.32 | 13 |
| NPIS35LS680MTRF | 68 | ±20% | 100KHz, 1V | 2.7 | 0.28 | 0.23 | 11 |

Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.

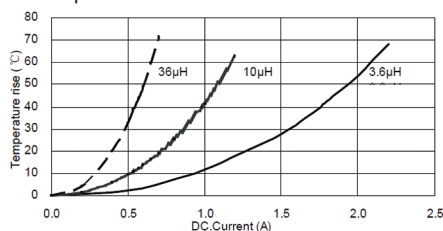


NPIS41LS Size

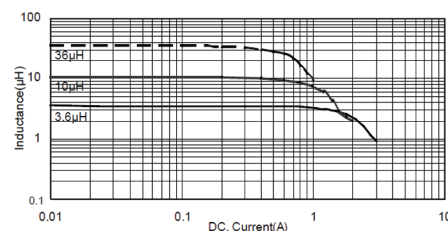
| Series | Standard Values - Case Size 41 (4.0 x 4.0 x 1.2mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS41LSR82YTRF | 0.82 | ±30% | 100KHz, 1V | 0.05 | 3.53 | 1.65 | 150 |
| NPIS41LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.05 | 2.61 | 1.65 | 120 |
| NPIS41LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.065 | 2.83 | 1.46 | 100 |
| NPIS41LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.065 | 2.1 | 1.46 | 90 |
| NPIS41LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.08 | 2.47 | 1.32 | 88 |
| NPIS41LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.08 | 1.76 | 1.32 | 74 |
| NPIS41LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.09 | 1.9 | 1.25 | 71 |
| NPIS41LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.113 | 1.25 | 1.12 | 60 |
| NPIS41LS3R6YTRF | 3.6 | ±30% | 100KHz, 1V | 0.11 | 1.2 | 1.12 | 57 |
| NPIS41LS4R3YTRF | 4.3 | ±30% | 100KHz, 1V | 0.14 | 1.75 | 1 | 54 |
| NPIS41LS4R7YTRF | 4.7 | ±30% | 100KHz, 1V | 0.125 | 1.15 | 1.05 | 50 |
| NPIS41LS5R1YTRF | 5.1 | ±30% | 100KHz, 1V | 0.155 | 1.21 | 0.95 | 50 |
| NPIS41LS5R6YTRF | 5.6 | ±30% | 100KHz, 1V | 0.14 | 1.0 | 1.0 | 42 |
| NPIS41LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.198 | 0.95 | 0.84 | 40 |
| NPIS41LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.265 | 0.8 | 0.77 | 33 |
| NPIS41LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.29 | 0.66 | 0.7 | 32 |
| NPIS41LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.34 | 0.56 | 0.64 | 25 |
| NPIS41LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.47 | 0.55 | 0.55 | 23 |
| NPIS41LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.47 | 0.54 | 0.55 | 20 |
| NPIS41LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.72 | 0.5 | 0.45 | 18 |
| NPIS41LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.81 | 0.42 | 0.42 | 17 |
| NPIS41LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.9 | 0.4 | 0.4 | 14 |
| NPIS41LS390MTRF | 39 | ±20% | 100KHz, 1V | 1.1 | 0.55 | 0.37 | 16 |
| NPIS41LS470MTRF | 47 | ±20% | 100KHz, 1V | 1.1 | 0.35 | 0.37 | 12 |
| NPIS41LS560MTRF | 56 | ±20% | 100KHz, 1V | 1.25 | 0.33 | 0.33 | 11 |
| NPIS41LS680MTRF | 68 | ±20% | 100KHz, 1V | 1.46 | 0.3 | 0.31 | 11 |
| NPIS41LS820MTRF | 82 | ±20% | 100KHz, 1V | 2.14 | 0.28 | 0.26 | 11 |
| NPIS41LS101MTRF | 100 | ±20% | 100KHz, 1V | 2.21 | 0.25 | 0.25 | 9.4 |

Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

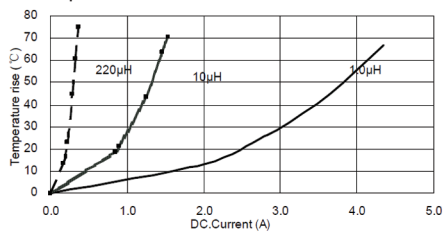


NPIS48LS Size

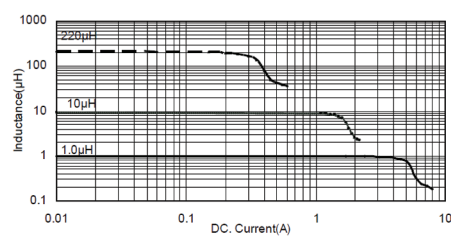
| Series | Standard Values - Case Size 48 (4.0 x 4.0 x 1.8mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS48LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.025 | 4.8 | 2 | 80 |
| NPIS48LS2R2MTRF | 2.2 | ±20% | 100KHz, 1V | 0.045 | 2.7 | 1.65 | 52 |
| NPIS48LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.07 | 2.45 | 1.23 | 44 |
| NPIS48LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.09 | 1.7 | 1.2 | 34 |
| NPIS48LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.11 | 1.45 | 1.06 | 29 |
| NPIS48LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.18 | 1.3 | 0.84 | 24 |
| NPIS48LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.25 | 0.94 | 0.65 | 19 |
| NPIS48LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.36 | 0.8 | 0.59 | 16 |
| NPIS48LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.53 | 0.65 | 0.49 | 12 |
| NPIS48LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.65 | 0.57 | 0.42 | 10 |
| NPIS48LS680MTRF | 68 | ±20% | 100KHz, 1V | 1 | 0.47 | 0.32 | 8.3 |
| NPIS48LS101MTRF | 100 | ±20% | 100KHz, 1V | 1.75 | 0.4 | 0.25 | 6.5 |
| NPIS48LS151MTRF | 150 | ±20% | 100KHz, 1V | 2.5 | 0.31 | 0.22 | 5.5 |
| NPIS48LS221MTRF | 220 | ±20% | 100KHz, 1V | 4 | 0.27 | 0.17 | 4 |

Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.

Temperature vs. DC Current Characteristics



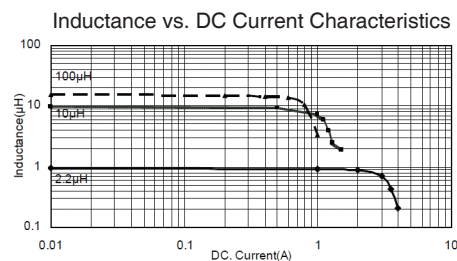
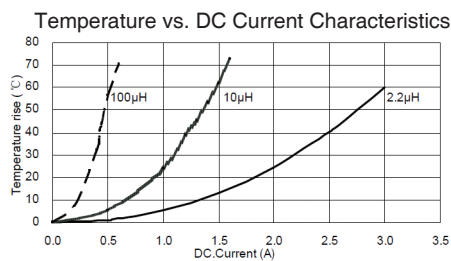
Inductance vs. DC Current Characteristics



NPIS42LS Size

| Series | Standard Values - Case Size 42 (4.0 x 4.0 x 2.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS42LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.029 | 4.85 | 2.15 | 75 |
| NPIS42LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.029 | 5.1 | 2.15 | 72 |
| NPIS42LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.035 | 4.45 | 1.98 | 71 |
| NPIS42LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.04 | 3.4 | 1.85 | 49 |
| NPIS42LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.07 | 3.2 | 1.4 | 44 |
| NPIS42LS3R6MTRF | 3.6 | ±20% | 100KHz, 1V | 0.055 | 2.8 | 1.54 | 49 |
| NPIS42LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.075 | 2.35 | 1.34 | 42 |
| NPIS42LS5R1MTRF | 5.1 | ±20% | 100KHz, 1V | 0.085 | 2.3 | 1.27 | 42 |
| NPIS42LS5R6MTRF | 5.6 | ±20% | 100KHz, 1V | 0.09 | 2.2 | 1.22 | 30 |
| NPIS42LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.115 | 2.15 | 1.08 | 36 |
| NPIS42LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.125 | 2.2 | 1.04 | 33 |
| NPIS42LS7R5MTRF | 7.5 | ±20% | 100KHz, 1V | 0.115 | 1.85 | 1.08 | 30 |
| NPIS42LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.125 | 1.75 | 1.04 | 27 |
| NPIS42LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.165 | 1.6 | 0.9 | 26 |
| NPIS42LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.175 | 1.5 | 0.88 | 26 |
| NPIS42LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.23 | 1.35 | 0.77 | 24 |
| NPIS42LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.35 | 1.05 | 0.62 | 15 |
| NPIS42LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.545 | 1.02 | 0.5 | 14 |
| NPIS42LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.55 | 0.85 | 0.49 | 11 |
| NPIS42LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.65 | 0.82 | 0.46 | 11 |
| NPIS42LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.66 | 0.77 | 0.45 | 10 |
| NPIS42LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.71 | 0.74 | 0.44 | 10 |
| NPIS42LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.75 | 0.7 | 0.42 | 10 |
| NPIS42LS560MTRF | 56 | ±20% | 100KHz, 1V | 0.8 | 0.66 | 0.41 | 10 |
| NPIS42LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.9 | 0.65 | 0.39 | 9.6 |
| NPIS42LS680MTRF | 68 | ±20% | 100KHz, 1V | 1.06 | 0.61 | 0.36 | 7.7 |
| NPIS42LS750MTRF | 75 | ±20% | 100KHz, 1V | 1.12 | 0.6 | 0.35 | 7.7 |
| NPIS42LS820MTRF | 82 | ±20% | 100KHz, 1V | 1.17 | 0.56 | 0.34 | 7.2 |
| NPIS42LS101MTRF | 100 | ±20% | 100KHz, 1V | 1.35 | 0.52 | 0.31 | 6.3 |

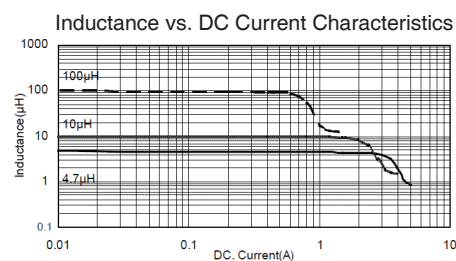
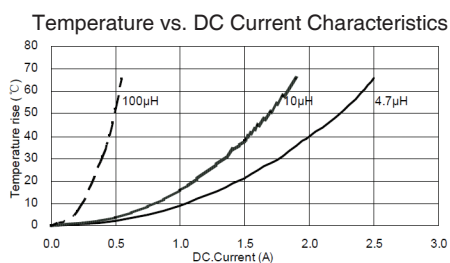
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS43LS Size

| Series | Standard Values - Case Size 43 (4.0 x 4.0 x 3.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS43LSR91YTRF | 0.91 | ±30% | 100KHz, 1V | 0.022 | 6.25 | 3.15 | 100 |
| NPIS43LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.025 | 5.8 | 2.96 | 80 |
| NPIS43LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.03 | 4.84 | 2.92 | 62 |
| NPIS43LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.03 | 5.4 | 2.92 | 60 |
| NPIS43LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.035 | 4.9 | 2.57 | 52 |
| NPIS43LS3R3MTRF | 3.3 | ±20% | 100KHz, 1V | 0.04 | 3.3 | 2.4 | 38 |
| NPIS43LS4R3MTRF | 4.3 | ±20% | 100KHz, 1V | 0.055 | 2.95 | 2.1 | 37 |
| NPIS43LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.06 | 2.9 | 2 | 31 |
| NPIS43LS5R6MTRF | 5.6 | ±20% | 100KHz, 1V | 0.065 | 2.6 | 1.95 | 30 |
| NPIS43LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.07 | 2.5 | 1.85 | 29 |
| NPIS43LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.09 | 2.75 | 1.6 | 24 |
| NPIS43LS7R5MTRF | 7.5 | ±20% | 100KHz, 1V | 0.085 | 2.2 | 1.65 | 26 |
| NPIS43LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.09 | 2.1 | 1.6 | 26 |
| NPIS43LS9R1MTRF | 9.1 | ±20% | 100KHz, 1V | 0.095 | 2 | 1.55 | 23 |
| NPIS43LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.1 | 1.95 | 1.5 | 21 |
| NPIS43LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.135 | 1.7 | 1.3 | 18 |
| NPIS43LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.19 | 1.65 | 1.11 | 16 |
| NPIS43LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.2 | 1.4 | 1.1 | 10 |
| NPIS43LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.225 | 1.3 | 1 | 10 |
| NPIS43LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.33 | 1.1 | 0.84 | 10 |
| NPIS43LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.335 | 1.05 | 0.83 | 9.8 |
| NPIS43LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.435 | 1.03 | 0.73 | 10 |
| NPIS43LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.44 | 1 | 0.73 | 9.2 |
| NPIS43LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.445 | 0.95 | 0.72 | 8.4 |
| NPIS43LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.47 | 0.9 | 0.7 | 8.4 |
| NPIS43LS560MTRF | 56 | ±20% | 100KHz, 1V | 0.555 | 0.85 | 0.65 | 8.4 |
| NPIS43LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.829 | 0.8 | 0.53 | 7 |
| NPIS43LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.868 | 0.75 | 0.52 | 7 |
| NPIS43LS750MTRF | 75 | ±20% | 100KHz, 1V | 1.02 | 0.7 | 0.48 | 6.3 |
| NPIS43LS820MTRF | 82 | ±20% | 100KHz, 1V | 1.06 | 0.66 | 0.47 | 5.6 |
| NPIS43LS910MTRF | 91 | ±20% | 100KHz, 1V | 1.1 | 0.65 | 0.46 | 5.6 |
| NPIS43LS101MTRF | 100 | ±20% | 100KHz, 1V | 1.15 | 0.6 | 0.45 | 5.6 |
| NPIS43LS121MTRF | 120 | ±20% | 100KHz, 1V | 1.35 | 0.55 | 0.42 | 5.4 |

Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



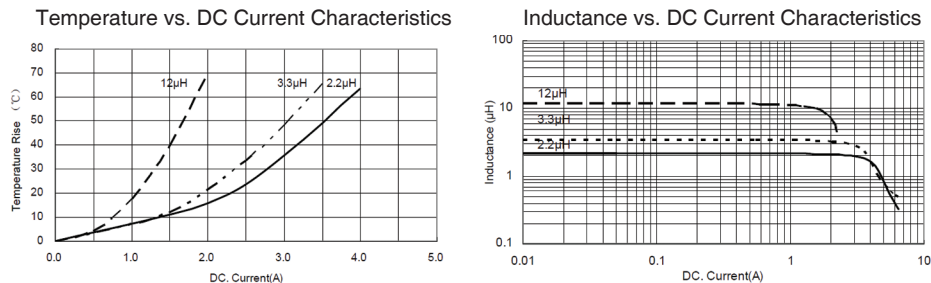
NPIS52LS Size

| Series | Standard Values - Case Size 52 (5.0 x 5.0 x 2.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS52LSR47YTRF | 0.47 | ±30% | 100KHz, 1V | 0.013 | 6.15 | 4.6 | 160 |
| NPIS52LSR75YTRF | 0.75 | ±30% | 100KHz, 1V | 0.017 | 5.5 | 4 | 117 |
| NPIS52LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.02 | 4.1 | 3.8 | 114 |
| NPIS52LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.022 | 4.5 | 3.55 | 83 |
| NPIS52LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.026 | 4.1 | 3.2 | 68 |
| NPIS52LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.032 | 3.2 | 2.9 | 57 |
| NPIS52LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.038 | 2.9 | 2.7 | 52 |
| NPIS52LS3R0YTRF | 3.0 | ±30% | 100KHz, 1V | 0.038 | 2.55 | 2.7 | 49 |
| NPIS52LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.043 | 2.55 | 2.5 | 46 |
| NPIS52LS3R6YTRF | 3.6 | ±30% | 100KHz, 1V | 0.043 | 2.8 | 2.5 | 43 |
| NPIS52LS3R9YTRF | 3.9 | ±30% | 100KHz, 1V | 0.043 | 2.3 | 2.5 | 40 |
| NPIS52LS4R3MTRF | 4.3 | ±20% | 100KHz, 1V | 0.057 | 2.5 | 2.2 | 37 |
| NPIS52LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.057 | 2.5 | 2.2 | 37 |
| NPIS52LS5R1MTRF | 5.1 | ±20% | 100KHz, 1V | 0.064 | 2.25 | 2.05 | 32 |
| NPIS52LS5R6MTRF | 5.6 | ±20% | 100KHz, 1V | 0.064 | 2.3 | 2.05 | 32 |
| NPIS52LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.083 | 2.05 | 1.8 | 30 |
| NPIS52LS7R5MTRF | 7.5 | ±20% | 100KHz, 1V | 0.09 | 1.85 | 1.75 | 26 |
| NPIS52LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.098 | 1.85 | 1.65 | 26 |
| NPIS52LS9R1MTRF | 9.1 | ±20% | 100KHz, 1V | 0.11 | 1.7 | 1.55 | 24 |
| NPIS52LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.11 | 1.7 | 1.55 | 24 |
| NPIS52LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.14 | 1.5 | 1.4 | 22 |
| NPIS52LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.165 | 1.35 | 1.25 | 20 |
| NPIS52LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.2 | 1.25 | 1.15 | 16 |
| NPIS52LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.226 | 1.15 | 1.1 | 14 |
| NPIS52LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.285 | 1.09 | 0.95 | 14 |
| NPIS52LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.37 | 0.97 | 0.83 | 13 |
| NPIS52LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.38 | 0.93 | 0.8 | 12 |
| NPIS52LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.415 | 0.93 | 0.78 | 12 |
| NPIS52LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.45 | 0.88 | 0.75 | 11 |
| NPIS52LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.525 | 0.81 | 0.7 | 11 |
| NPIS52LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.545 | 0.76 | 0.68 | 10 |
| NPIS52LS560MTRF | 56 | ±20% | 100KHz, 1V | 0.56 | 0.76 | 0.67 | 9.7 |
| NPIS52LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.625 | 0.72 | 0.63 | 9.2 |
| NPIS52LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.885 | 0.7 | 0.53 | 8.8 |
| NPIS52LS750MTRF | 75 | ±20% | 100KHz, 1V | 0.89 | 0.63 | 0.53 | 8.3 |
| NPIS52LS820MTRF | 82 | ±20% | 100KHz, 1V | 0.945 | 0.62 | 0.52 | 8.3 |
| NPIS52LS910MTRF | 91 | ±20% | 100KHz, 1V | 1 | 0.61 | 0.5 | 7.9 |
| NPIS52LS101MTRF | 100 | ±20% | 100KHz, 1V | 1.06 | 0.57 | 0.49 | 7.6 |

Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



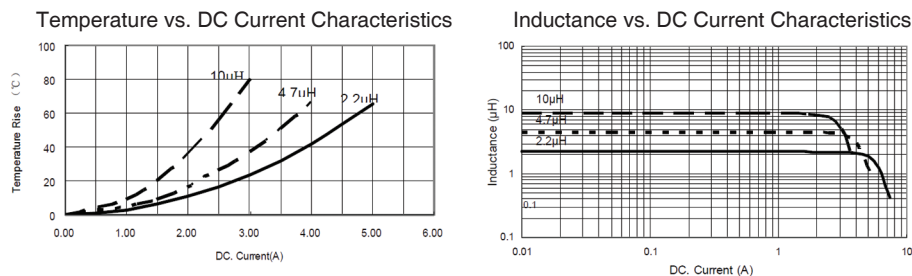
NPIS52LS Size (Continued)



NPIS54LS Size

| Series | Standard Values - Case Size 54 (5.0 x 5.0 x 4.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (µH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS54LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.012 | 7.35 | 4.9 | 117 |
| NPIS54LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.015 | 6.3 | 4.3 | 86 |
| NPIS54LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.019 | 4.9 | 3.8 | 50 |
| NPIS54LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.022 | 4.3 | 3.6 | 37 |
| NPIS54LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.024 | 3.95 | 3.4 | 32 |
| NPIS54LS3R9YTRF | 3.9 | ±30% | 100KHz, 1V | 0.027 | 3.55 | 3.2 | 29 |
| NPIS54LS4R7YTRF | 4.7 | ±30% | 100KHz, 1V | 0.03 | 3.5 | 3 | 28 |
| NPIS54LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.043 | 2.9 | 2.5 | 21 |
| NPIS54LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.064 | 2.35 | 2.1 | 18 |
| NPIS54LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.086 | 2 | 2 | 13 |
| NPIS54LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.129 | 1.6 | 1.5 | 11 |
| NPIS54LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.188 | 1.3 | 1.2 | 9.1 |
| NPIS54LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.272 | 1.1 | 1 | 6.7 |
| NPIS54LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.4 | 0.9 | 0.8 | 5.7 |
| NPIS54LS101MTRF | 100 | ±20% | 100KHz, 1V | 0.56 | 0.75 | 0.7 | 4.7 |

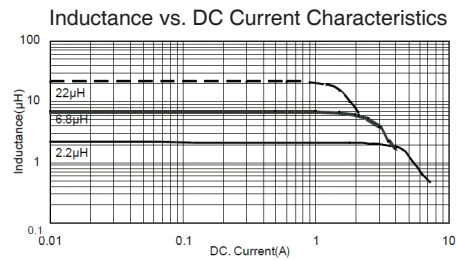
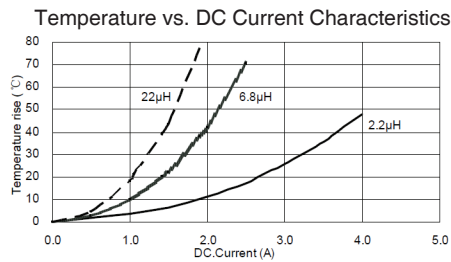
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS62LS Size

| Series | Standard Values - Case Size 62 (6.0 x 6.0 x 2.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS62LSR50YTRF | 0.5 | ±30% | 100KHz, 1V | 0.013 | 4.9 | 4.05 | 130 |
| NPIS62LSR68YTRF | 0.68 | ±30% | 100KHz, 1V | 0.017 | 7.5 | 3.8 | 120 |
| NPIS62LSR82YTRF | 0.82 | ±30% | 100KHz, 1V | 0.017 | 6.6 | 3.8 | 110 |
| NPIS62LS1R0YTRF | 1.0 | ±30% | 100KHz, 1V | 0.02 | 4.15 | 3.25 | 94 |
| NPIS62LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.022 | 5.9 | 3.2 | 88 |
| NPIS62LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.022 | 4.25 | 3.2 | 79 |
| NPIS62LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.028 | 4.85 | 2.75 | 68 |
| NPIS62LS2R0YTRF | 2 | ±30% | 100KHz, 1V | 0.035 | 4.3 | 2.45 | 64 |
| NPIS62LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.028 | 3.75 | 2.75 | 61 |
| NPIS62LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.035 | 3.9 | 2.6 | 56 |
| NPIS62LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.035 | 3.15 | 2.6 | 51 |
| NPIS62LS3R9YTRF | 3.9 | ±30% | 100KHz, 1V | 0.049 | 3.25 | 2.1 | 46 |
| NPIS62LS4R3YTRF | 4.3 | ±30% | 100KHz, 1V | 0.049 | 2.7 | 2.1 | 44 |
| NPIS62LS4R7YTRF | 4.7 | ±30% | 100KHz, 1V | 0.058 | 3 | 2 | 41 |
| NPIS62LS5R6YTRF | 5.6 | ±30% | 100KHz, 1V | 0.058 | 2.4 | 1.9 | 36 |
| NPIS62LS6R2YTRF | 6.2 | ±30% | 100KHz, 1V | 0.079 | 2.3 | 1.8 | 35 |
| NPIS62LS6R8YTRF | 6.8 | ±30% | 100KHz, 1V | 0.079 | 2.2 | 1.8 | 31 |
| NPIS62LS8R2YTRF | 8.2 | ±20% | 100KHz, 1V | 0.105 | 2.1 | 1.4 | 28 |
| NPIS62LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.105 | 1.75 | 1.4 | 27 |
| NPIS62LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.12 | 1.7 | 1.35 | 23 |
| NPIS62LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.145 | 1.5 | 1.2 | 21 |
| NPIS62LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.175 | 1.23 | 1.1 | 19 |
| NPIS62LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.204 | 1.25 | 1 | 16 |

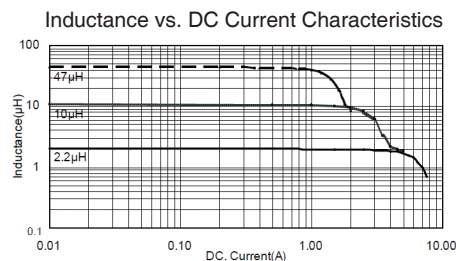
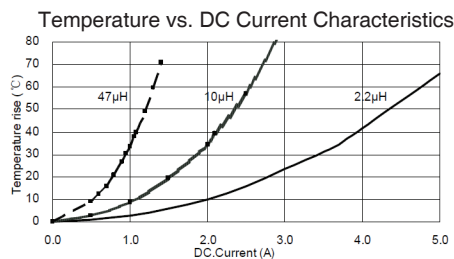
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS63LS Size

| Series | Standard Values - Case Size 63 (6.0 x 6.0 x 2.8mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS63LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.013 | 6 | 4.58 | 65 |
| NPIS63LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.015 | 5.1 | 4.09 | 56 |
| NPIS63LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.02 | 3.8 | 3.75 | 48 |
| NPIS63LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.025 | 3.63 | 3.48 | 41 |
| NPIS63LS4R7YTRF | 4.7 | ±30% | 100KHz, 1V | 0.03 | 3 | 3.08 | 35 |
| NPIS63LS5R1YTRF | 5.1 | ±30% | 100KHz, 1V | 0.035 | 3.55 | 2.89 | 33 |
| NPIS63LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.04 | 3.05 | 2.58 | 30 |
| NPIS63LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.047 | 2.85 | 2.4 | 27 |
| NPIS63LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.055 | 2.6 | 2.25 | 24 |
| NPIS63LS9R1MTRF | 9.1 | ±20% | 100KHz, 1V | 0.06 | 2.55 | 2.15 | 24 |
| NPIS63LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.072 | 2.04 | 1.95 | 23 |
| NPIS63LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.08 | 1.8 | 1.85 | 18 |
| NPIS63LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.125 | 1.75 | 1.45 | 18 |
| NPIS63LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.12 | 1.52 | 1.45 | 15 |
| NPIS63LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.14 | 1.6 | 1.4 | 14 |
| NPIS63LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.155 | 1.5 | 1.32 | 13 |
| NPIS63LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.185 | 1.35 | 1.22 | 12 |
| NPIS63LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.215 | 1.25 | 1.13 | 11 |
| NPIS63LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.225 | 1.25 | 1.1 | 11 |
| NPIS63LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.235 | 1.2 | 1.07 | 11 |
| NPIS63LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.245 | 1.15 | 1.06 | 9.5 |
| NPIS63LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.265 | 1.05 | 1.01 | 9.5 |
| NPIS63LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.345 | 0.95 | 0.89 | 7.7 |
| NPIS63LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.36 | 0.95 | 0.86 | 7.7 |
| NPIS63LS750MTRF | 75 | ±20% | 100KHz, 1V | 0.41 | 0.9 | 0.81 | 7.7 |
| NPIS63LS820MTRF | 82 | ±20% | 100KHz, 1V | 0.445 | 0.9 | 0.78 | 7.7 |
| NPIS63LS910MTRF | 91 | ±20% | 100KHz, 1V | 0.505 | 0.8 | 0.73 | 7.7 |
| NPIS63LS101MTRF | 100 | ±20% | 100KHz, 1V | 0.545 | 0.75 | 0.7 | 7.1 |

Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS65LS Size

| Series | Standard Values - Case Size 65 (6.0 x 6.0 x 4.5mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS65LSR82YTRF | 0.82 | ±30% | 100KHz, 1V | 0.008 | 10.4 | 5.9 | 140 |
| NPIS65LS1R0YTRF | 1 | ±30% | 100KHz, 1V | 0.011 | 9.85 | 5.14 | 100 |
| NPIS65LS1R2YTRF | 1.2 | ±30% | 100KHz, 1V | 0.01 | 8.35 | 5.4 | 100 |
| NPIS65LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.012 | 8.8 | 4.95 | 65 |
| NPIS65LS1R8YTRF | 1.8 | ±30% | 100KHz, 1V | 0.012 | 7.6 | 4.95 | 74 |
| NPIS65LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.014 | 6.75 | 4.6 | 52 |
| NPIS65LS2R3YTRF | 2.3 | ±30% | 100KHz, 1V | 0.021 | 6 | 3.5 | 60 |
| NPIS65LS2R7YTRF | 2.7 | ±30% | 100KHz, 1V | 0.015 | 5.75 | 4.3 | 38 |
| NPIS65LS3R0YTRF | 3 | ±30% | 100KHz, 1V | 0.02 | 5.6 | 3.8 | 35 |
| NPIS65LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.021 | 5.9 | 3.7 | 32 |
| NPIS65LS3R6YTRF | 3.6 | ±30% | 100KHz, 1V | 0.021 | 5.25 | 3.7 | 28 |
| NPIS65LS4R3MTRF | 4.3 | ±20% | 100KHz, 1V | 0.023 | 4.45 | 3.5 | 23 |
| NPIS65LS4R7MTRF | 4.7 | ±20% | 100KHz, 1V | 0.026 | 4.97 | 3.3 | 24 |
| NPIS65LS5R1MTRF | 5.1 | ±20% | 100KHz, 1V | 0.026 | 4.4 | 3.3 | 23 |
| NPIS65LS5R6MTRF | 5.6 | ±20% | 100KHz, 1V | 0.029 | 4.15 | 3.15 | 23 |
| NPIS65LS6R2MTRF | 6.2 | ±20% | 100KHz, 1V | 0.031 | 4.43 | 3 | 26 |
| NPIS65LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.031 | 3.9 | 3 | 20 |
| NPIS65LS7R5MTRF | 7.5 | ±20% | 100KHz, 1V | 0.034 | 3.5 | 2.9 | 18 |
| NPIS65LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.043 | 3.9 | 2.6 | 21 |
| NPIS65LS9R1MTRF | 9.1 | ±20% | 100KHz, 1V | 0.043 | 3.35 | 2.6 | 17 |
| NPIS65LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.048 | 3.2 | 2.45 | 15 |
| NPIS65LS120MTRF | 12 | ±20% | 100KHz, 1V | 0.058 | 2.8 | 2.2 | 13 |
| NPIS65LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.068 | 2.5 | 2.05 | 12 |
| NPIS65LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.081 | 2.2 | 1.85 | 10 |
| NPIS65LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.089 | 2.05 | 1.8 | 10 |
| NPIS65LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.102 | 1.9 | 1.65 | 9.2 |
| NPIS65LS300MTRF | 30 | ±20% | 100KHz, 1V | 0.132 | 1.7 | 1.5 | 7.8 |
| NPIS65LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.137 | 1.65 | 1.45 | 7.8 |
| NPIS65LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.173 | 1.62 | 1.4 | 7.8 |
| NPIS65LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.18 | 1.5 | 1.25 | 7.8 |
| NPIS65LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.2 | 1.63 | 1.2 | 7.7 |
| NPIS65LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.2 | 1.4 | 1.2 | 6.4 |
| NPIS65LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.207 | 1.35 | 1.15 | 6.4 |
| NPIS65LS560MTRF | 56 | ±20% | 100KHz, 1V | 0.221 | 1.3 | 1.1 | 6.4 |
| NPIS65LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.235 | 1.25 | 1.1 | 6.4 |
| NPIS65LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.289 | 1.2 | 1 | 6.4 |

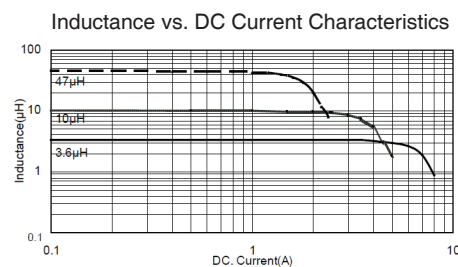
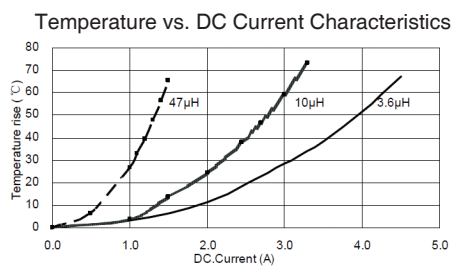
Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.



NPIS65LS Size (Continued)

| Series | Standard Values - Case Size 65 (6.0 x 6.0 x 4.5mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS65LS750MTRF | 75 | ±20% | 100KHz, 1V | 0.305 | 1.15 | 0.95 | 5 |
| NPIS65LS820MTRF | 82 | ±20% | 100KHz, 1V | 0.341 | 1.05 | 0.9 | 4.9 |
| NPIS65LS910MTRF | 91 | ±20% | 100KHz, 1V | 0.359 | 1 | 0.85 | 4.9 |
| NPIS65LS101MTRF | 100 | ±20% | 100KHz, 1V | 0.433 | 0.95 | 0.8 | 4.2 |
| NPIS65LS121MTRF | 120 | ±20% | 100KHz, 1V | 0.484 | 0.85 | 0.77 | 4.2 |
| NPIS65LS151MTRF | 150 | ±20% | 100KHz, 1V | 0.58 | 0.8 | 0.7 | 4.2 |
| NPIS65LS221MTRF | 220 | ±20% | 100KHz, 1V | 0.834 | 0.7 | 0.59 | 3.5 |
| NPIS65LS331MTRF | 330 | ±20% | 100KHz, 1V | 1.27 | 0.57 | 0.57 | 2.8 |

Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS84LS Size

| Series | Standard Values - Case Size 84 (8.0 x 8.0 x 4.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|--------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS84LSR82YTRF | 0.82 | ±30% | 100KHz, 1V | 0.008 | 13.8 | 6.3 | 94 |
| NPIS84LS1R0YTRF | 1 | ±30% | 100KHz, 1V | 0.008 | 9.85 | 6.3 | 89 |
| NPIS84LS1R5YTRF | 1.5 | ±30% | 100KHz, 1V | 0.01 | 8.15 | 5.65 | 67 |
| NPIS84LS2R0YTRF | 2 | ±30% | 100KHz, 1V | 0.012 | 9.25 | 5.15 | 43 |
| NPIS84LS2R2YTRF | 2.2 | ±30% | 100KHz, 1V | 0.012 | 7.1 | 5.15 | 41 |
| NPIS84LS3R0YTRF | 3 | ±30% | 100KHz, 1V | 0.014 | 6.1 | 4.7 | 32 |
| NPIS84LS3R3YTRF | 3.3 | ±30% | 100KHz, 1V | 0.017 | 6.5 | 4.4 | 27 |
| NPIS84LS3R6YTRF | 3.6 | ±30% | 100KHz, 1V | 0.017 | 7.52 | 4.35 | 30 |
| NPIS84LS3R9YTRF | 3.9 | ±30% | 100KHz, 1V | 0.017 | 5.75 | 4.35 | 26 |
| NPIS84LS4R7YTRF | 4.7 | ±30% | 100KHz, 1V | 0.019 | 5.9 | 4.1 | 24 |
| NPIS84LS5R1YTRF | 5.1 | ±30% | 100KHz, 1V | 0.019 | 4.7 | 4.05 | 22 |
| NPIS84LS5R6YTRF | 5.6 | ±30% | 100KHz, 1V | 0.021 | 6 | 3.85 | 24 |
| NPIS84LS6R2YTRF | 6.2 | ±30% | 100KHz, 1V | 0.021 | 4.45 | 3.85 | 20 |
| NPIS84LS6R8MTRF | 6.8 | ±20% | 100KHz, 1V | 0.024 | 4.55 | 3.6 | 20 |
| NPIS84LS8R2MTRF | 8.2 | ±20% | 100KHz, 1V | 0.026 | 4.2 | 3.45 | 17 |
| NPIS84LS100MTRF | 10 | ±20% | 100KHz, 1V | 0.029 | 3.6 | 3.3 | 15 |

Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.

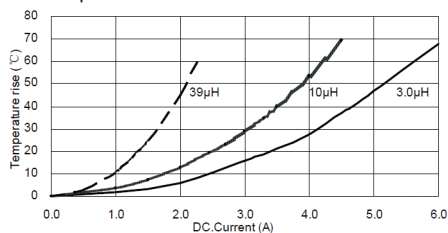


NPIS84LS Size (Continued)

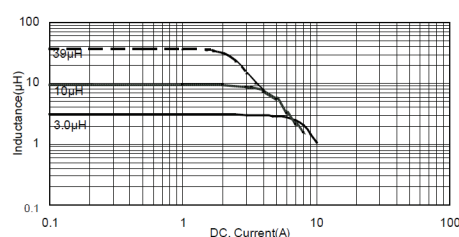
| Series | Standard Values - Case Size 84 (8.0 x 8.0 x 4.0mm) | | | | | | |
|-----------------|--|-----------|-----------------|-----------------|-------------|-------------|-----------|
| | Inductance (μH) | Tolerance | Test Conditions | DCR (Ω) ±30% | Isat (Amps) | Irms (Amps) | SRF (MHz) |
| NPIS84LS150MTRF | 15 | ±20% | 100KHz, 1V | 0.047 | 2.95 | 2.6 | 12 |
| NPIS84LS180MTRF | 18 | ±20% | 100KHz, 1V | 0.053 | 2.7 | 2.4 | 11 |
| NPIS84LS220MTRF | 22 | ±20% | 100KHz, 1V | 0.069 | 2.4 | 2.1 | 9.5 |
| NPIS84LS270MTRF | 27 | ±20% | 100KHz, 1V | 0.078 | 2.15 | 2 | 9.2 |
| NPIS84LS330MTRF | 33 | ±20% | 100KHz, 1V | 0.097 | 2.05 | 1.8 | 7.8 |
| NPIS84LS360MTRF | 36 | ±20% | 100KHz, 1V | 0.102 | 2 | 1.75 | 7.8 |
| NPIS84LS390MTRF | 39 | ±20% | 100KHz, 1V | 0.107 | 1.95 | 1.7 | 7.8 |
| NPIS84LS430MTRF | 43 | ±20% | 100KHz, 1V | 0.113 | 1.9 | 1.65 | 7.8 |
| NPIS84LS470MTRF | 47 | ±20% | 100KHz, 1V | 0.136 | 1.75 | 1.55 | 6.4 |
| NPIS84LS510MTRF | 51 | ±20% | 100KHz, 1V | 0.142 | 1.7 | 1.5 | 6.4 |
| NPIS84LS560MTRF | 56 | ±20% | 100KHz, 1V | 0.148 | 1.55 | 1.45 | 6.4 |
| NPIS84LS620MTRF | 62 | ±20% | 100KHz, 1V | 0.182 | 1.5 | 1.3 | 6.4 |
| NPIS84LS680MTRF | 68 | ±20% | 100KHz, 1V | 0.196 | 1.45 | 1.25 | 4.9 |
| NPIS84LS750MTRF | 75 | ±20% | 100KHz, 1V | 0.211 | 1.35 | 1.2 | 4.9 |
| NPIS84LS820MTRF | 82 | ±20% | 100KHz, 1V | 0.225 | 1.3 | 1.15 | 5.9 |
| NPIS84LS910MTRF | 91 | ±20% | 100KHz, 1V | 0.272 | 1.2 | 1.05 | 4.9 |
| NPIS84LS101MTRF | 100 | ±20% | 100KHz, 1V | 0.29 | 1.15 | 1 | 4.2 |
| NPIS84LS121MTRF | 120 | ±20% | 100KHz, 1V | 0.334 | 1.05 | 0.95 | 3.5 |
| NPIS84LS151MTRF | 150 | ±20% | 100KHz, 1V | 0.41 | 1.1 | 0.85 | 3.5 |
| NPIS84LS221MTRF | 220 | ±20% | 100KHz, 1V | 0.599 | 0.85 | 0.8 | 3.5 |
| NPIS84LS331MTRF | 330 | ±20% | 100KHz, 1V | 0.889 | 0.68 | 0.64 | 2.8 |

Maximum +40°C temperature rise at I_{rms}. Maximum -30% inductance drop from initial measured value at I_{sat}.

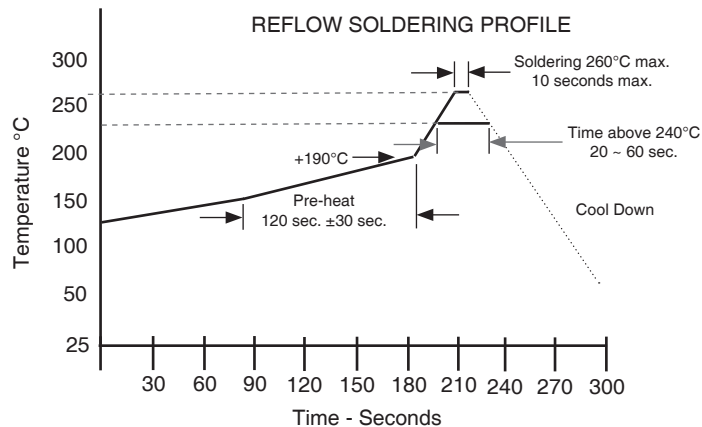
Temperature vs. DC Current Characteristics



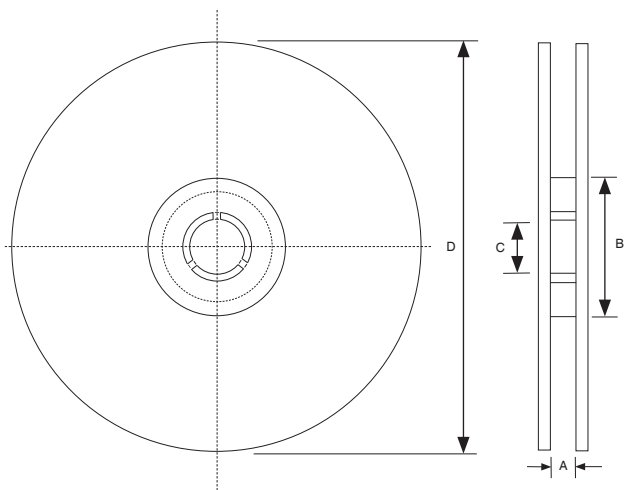
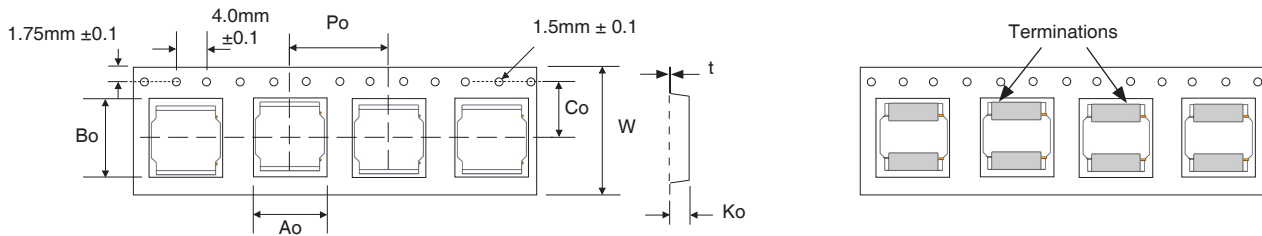
Inductance vs. DC Current Characteristics



REFLOW SOLDERING PROFILE



| Case Size | CARRIER TAPING DIMENSIONS (mm) AND REEL QUANTITY | | | | | | | |
|-----------|--|-------------|------------|------------|------------|------------|-------------|----------|
| | Ao | Bo | Ko | Co | W | Po | t | Quantity |
| NPIS20LS | 2.35 ± 0.05 | 2.65 ± 0.05 | 1.2 ± 0.05 | 3.5 ± 0.05 | 8.0 ± 0.1 | 4.0 ± 0.1 | 0.25 ± 0.03 | 2,000 |
| NPIS21LS | 2.2 ± 0.1 | 2.6 ± 0.1 | 1.4 ± 0.1 | 3.5 ± 0.1 | 8.0 ± 0.3 | 4.0 ± 0.1 | 0.3 ± 0.03 | 2,000 |
| NPIS31LS | 3.3 ± 0.1 | 3.3 ± 0.1 | 1.4 ± 0.1 | 3.5 ± 0.1 | 8.0 ± 0.3 | 4.0 ± 0.1 | 0.3 ± 0.03 | 2,000 |
| NPIS32LS | | | 1.6 ± 0.1 | | | | | 2,000 |
| NPIS35LS | | | 1.9 ± 0.1 | | | | | 2,000 |
| NPIS41LS | 4.4 ± 0.1 | 4.4 ± 0.1 | 1.6 ± 0.1 | 5.5 ± 0.1 | 12.0 ± 0.3 | 8.0 ± 0.1 | 0.3 ± 0.03 | 4,500 |
| NPIS48LS | | | 2.4 ± 0.1 | | | | | 3,000 |
| NPIS42LS | | | 2.4 ± 0.1 | | | | | 3,000 |
| NPIS43LS | | | 3.4 ± 0.1 | | | | | 2,000 |
| NPIS52LS | 5.3 ± 0.1 | 5.3 ± 0.1 | 3.0 ± 0.15 | 5.5 ± 0.1 | 12.0 ± 0.3 | 8.0 ± 0.1 | 0.3 ± 0.05 | 2,500 |
| NPIS54LS | | | 4.4 ± 0.1 | | | | | 1,500 |
| NPIS62LS | 6.4 ± 0.1 | 6.4 ± 0.1 | 2.5 ± 0.1 | 7.5 ± 0.1 | 16.0 ± 0.3 | 8.0 ± 0.1 | 0.4 ± 0.03 | 2,500 |
| NPIS63LS | | | 3.3 ± 0.1 | | | | | 2,000 |
| NPIS65LS | | | 4.7 ± 0.1 | | | | | 1,500 |
| NPIS84LS | 8.35 ± 0.1 | 8.35 ± 0.1 | 4.4 ± 0.1 | 7.5 ± 0.1 | 16.0 ± 0.3 | 12.0 ± 0.1 | 0.4 ± 0.03 | 1,000 |



| Tape Width | REEL DIMENSIONS (mm) | | | |
|------------|----------------------|-----------|------------|-----------|
| | A(mm) | B(mm) | C(mm) | D(mm) |
| NPIS20LS | 9.0 ± 1.5 | 58 ± 2.0 | 13.5 ± 0.2 | 178 ± 2.0 |
| NPIS21LS | | | | |
| NPIS31LS | 9.0 ± 1.5 | 58 ± 2.0 | 13.5 ± 0.2 | 178 ± 2.0 |
| NPIS32LS | | | | |
| NPIS35LS | | | | |
| NPIS41LS | 12.4 +0.2/-0 | 100 ± 2.0 | 13.0 +2/-0 | 330 ± 2.0 |
| NPIS48LS | | | | |
| NPIS42LS | | | | |
| NPIS43LS | | | | |
| NPIS52LS | 16.4 +0.2/-0 | 100 ± 2.0 | 13.0 +2/-0 | 330 ± 2.0 |
| NPIS54LS | | | | |
| NPIS62LS | 12.4 +0.2/-0 | 100 ± 2.0 | 13.0 +2/-0 | 330 ± 2.0 |
| NPIS63LS | | | | |
| NPIS65LS | | | | |
| NPIS84LS | 16.4 +0.2/-0 | 100 ± 2.0 | 13.0 +2/-0 | 330 ± 2.0 |

