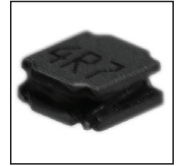


## FEATURES

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

**RoHS Compliant**  
includes all homogeneous materials



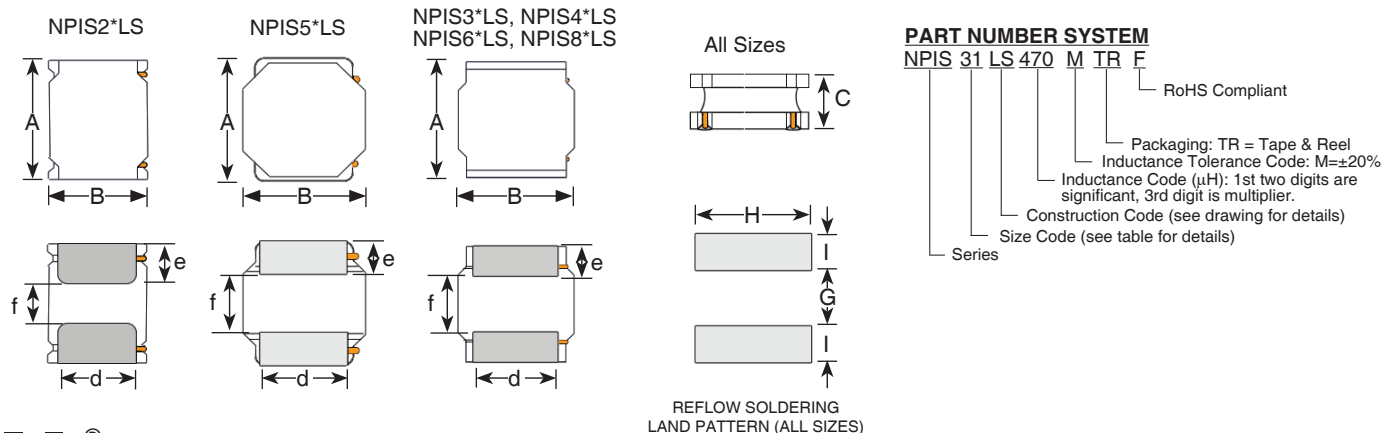
\*See Part Number System for Details

## CHARACTERISTICS

Case Size	NPIS20LS	NPIS21LS	NPIS31LS	NPIS32LS	NPIS35LS
Inductance Range	0.47 ~ 10 $\mu$ H	0.47 ~ 22 $\mu$ H	1.0 ~ 62 $\mu$ H	0.82 ~ 100 $\mu$ H	1.0 ~ 68 $\mu$ H
Case Size	NPIS41LS	NPIS48LS	NPIS42LS	NPIS43LS	NPIS52LS
Inductance Range	0.82 ~ 100 $\mu$ H	1.0 ~ 220 $\mu$ H	1.0 ~ 100 $\mu$ H	0.91 ~ 120 $\mu$ H	0.47 ~ 100 $\mu$ H
Case Size	NPIS54LS	NPIS62LS	NPIS63LS	NPIS65LS	NPIS84LS
Inductance Range	1.0 ~ 100 $\mu$ H	0.5 ~ 22 $\mu$ H	1.5 ~ 100 $\mu$ H	0.82 ~ 330 $\mu$ H	0.82 ~ 330 $\mu$ H
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	$\pm$ 20% (M), $\pm$ 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 $\pm$ 0.1	2.0 $\pm$ 0.1	1.0 Max.	1.5 $\pm$ 0.2	0.80 $\pm$ 0.2	0.80 $\pm$ 0.2	0.8	0.85	2
NPIS21LS	2.5 $\pm$ 0.1	2.0 $\pm$ 0.1	1.2 Max.	1.5 $\pm$ 0.2	0.80 $\pm$ 0.2	0.80 $\pm$ 0.2			
NPIS31LS	3.0 $\pm$ 0.2	3.0 $\pm$ 0.2	1.0 Max.	2.5 $\pm$ 0.2	0.75 $\pm$ 0.2	1.5 $\pm$ 0.2			
NPIS32LS	3.0 $\pm$ 0.2	3.0 $\pm$ 0.2	1.2 Max.	2.5 $\pm$ 0.2	0.75 $\pm$ 0.2	1.5 $\pm$ 0.2	1.5	0.8	2.7
NPIS35LS	3.0 $\pm$ 0.2	3.0 $\pm$ 0.2	1.5 Max.	2.5 $\pm$ 0.2	0.75 $\pm$ 0.2	1.5 $\pm$ 0.2			
NPIS41LS	4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	1.2 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2			
NPIS48LS	4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	1.8 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2	1.9	1.1	3.4
NPIS42LS	4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	2.0 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2			
NPIS43LS	4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	3.0 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2			
NPIS52LS	5.0 $\pm$ 0.2	5.0 $\pm$ 0.2	2.0 Max.	4.0 $\pm$ 0.2	1.25 $\pm$ 0.2	2.5 $\pm$ 0.2	2.3	1.4	4.2
NPIS54LS	5.0 $\pm$ 0.2	5.0 $\pm$ 0.2	4.0 Max.	4.0 $\pm$ 0.2	1.25 $\pm$ 0.2	2.5 $\pm$ 0.2			
NPIS62LS	6.0 $\pm$ 0.3	6.0 $\pm$ 0.3	2.0 Max.	4.9 $\pm$ 0.3	1.55 $\pm$ 0.3	2.9 $\pm$ 0.3			
NPIS63LS	6.0 $\pm$ 0.3	6.0 $\pm$ 0.3	2.8 Max.	4.9 $\pm$ 0.3	1.55 $\pm$ 0.3	2.9 $\pm$ 0.3	2.8	1.7	5.7
NPIS65LS	6.0 $\pm$ 0.3	6.0 $\pm$ 0.3	4.5 Max.	4.9 $\pm$ 0.3	1.55 $\pm$ 0.3	2.9 $\pm$ 0.3			
NPIS84LS	8.0 $\pm$ 0.3	8.0 $\pm$ 0.3	4.2 Max.	6.3 $\pm$ 0.3	2.00 $\pm$ 0.3	4.0 $\pm$ 0.3			



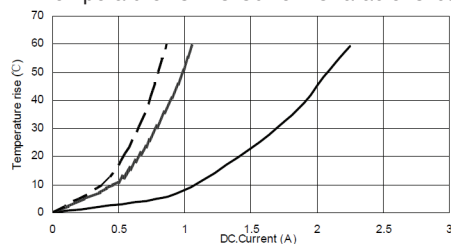
\*Specifications reflect recent product changes. For more information refer to PCN announcement [Link]

## NPIS20LS Size

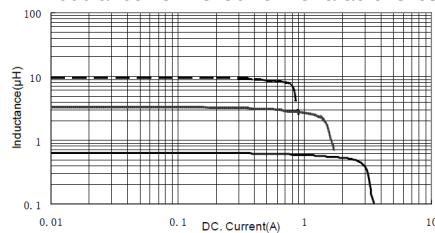
Series	Standard Values - Case Size 20 (2.0 x 2.5 x 1.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	Max. DCR (Ω) ±30%	Max. Isat (Amps)	Typ. Isat (Amps)	I <sub>rms</sub> (Amps)
NPIS20LSR47YTRF	0.47	±30%	100KHz, 1V	0.061	2.5	3.35	2.35
NPIS20LSR68YTRF	0.68	±30%	100KHz, 1V	0.081	2.2	2.75	2
NPIS20LS1R0YTRF	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<sub>rms</sub>. Maximum -30% inductance drop from initial measured value at I<sub>sat</sub>.

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## 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 <sub>rms</sub> (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

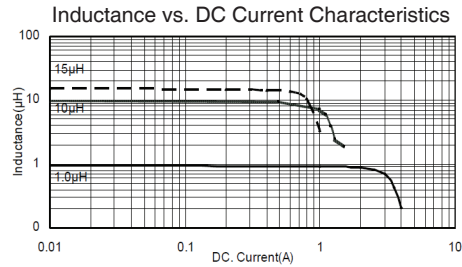
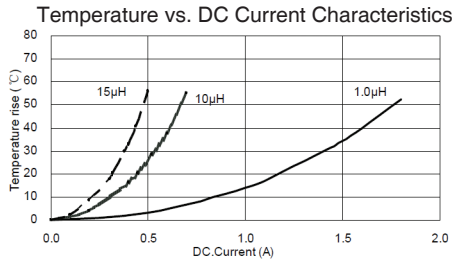
Maximum +40°C temperature rise at I<sub>rms</sub>. Maximum -30% inductance drop from initial measured value at I<sub>sat</sub>.



## 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 <sub>rms</sub> (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

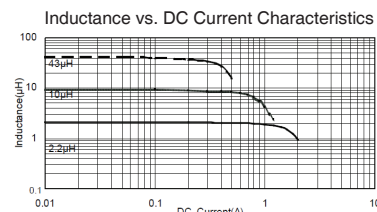
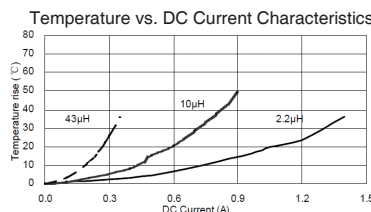
Maximum +40°C temperature rise at I<sub>rms</sub>. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS31LS Size

Series	Standard Values - Case Size 31 (3.0 x 3.0 x 1.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. I <sub>rms</sub> (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

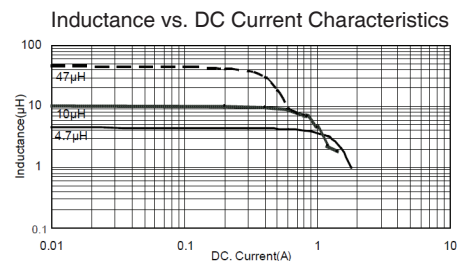
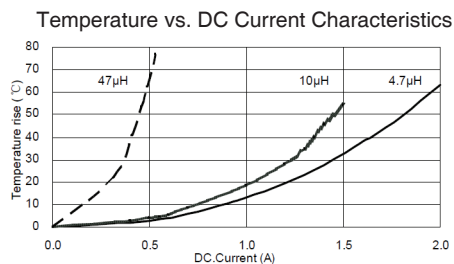
Maximum +40°C temperature rise at I<sub>rms</sub>. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS32LS Size

Series	Standard Values - Case Size 32 (3.0 x 3.0 x 1.2mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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

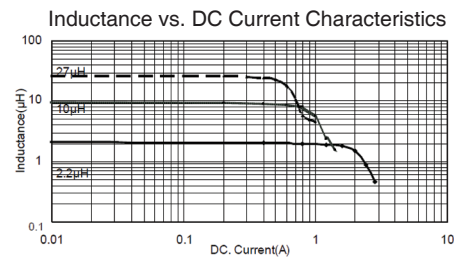
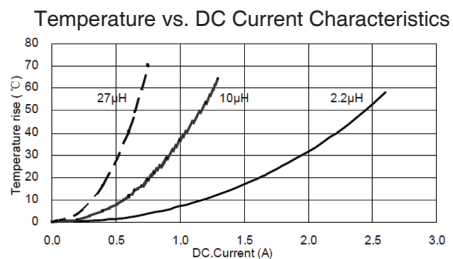
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS35LS Size

Series	Standard Values - Case Size 35 (3.0 x 3.0 x 1.5mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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.

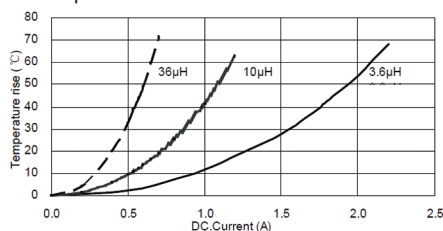


## NPIS41LS Size

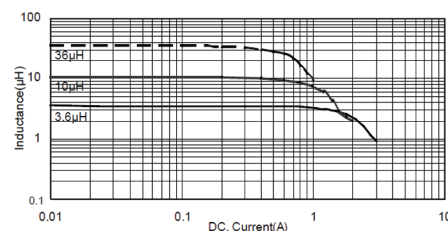
Series	Standard Values - Case Size 41 (4.0 x 4.0 x 1.2mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS41LSR82YTRF	0.82	±30%	100KHz, 1V	0.05	3.53	1.65	150
NPIS41LS1R0YTRF	1.0	±30%	100KHz, 1V	0.05	2.61	1.65	120
NPIS41LS1R2YTRF	1.2	±30%	100KHz, 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

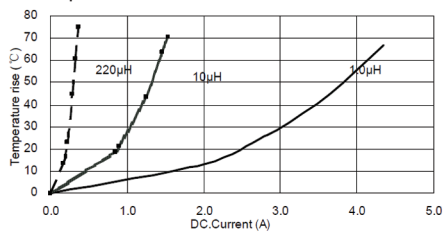


## NPIS48LS Size

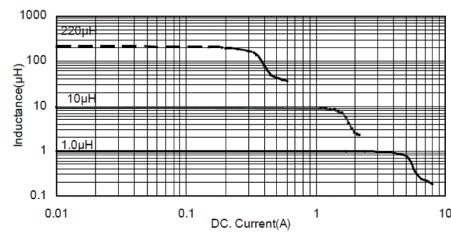
Series	Standard Values - Case Size 48 (4.0 x 4.0 x 1.8mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS48LS1R0YTRF	1.0	±30%	100KHz, 1V	0.025	4.8	2	80
NPIS48LS2R2MTRF	2.2	±20%	100KHz, 1V	0.045	2.7	1.65	52
NPIS48LS3R3MTRF	3.3	±20%	100KHz, 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



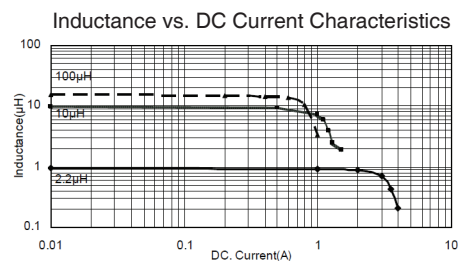
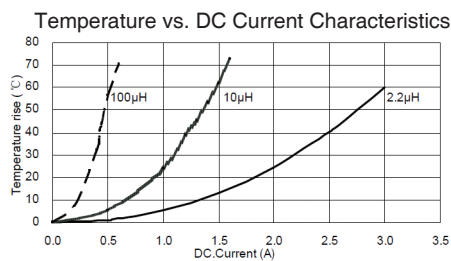
Inductance vs. DC Current Characteristics



## NPIS42LS Size

Series	Standard Values - Case Size 42 (4.0 x 4.0 x 2.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.

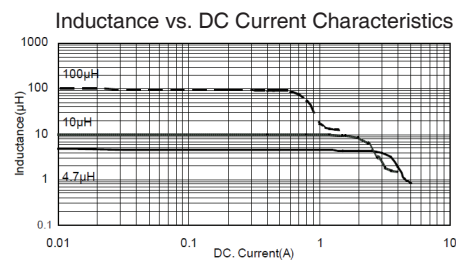
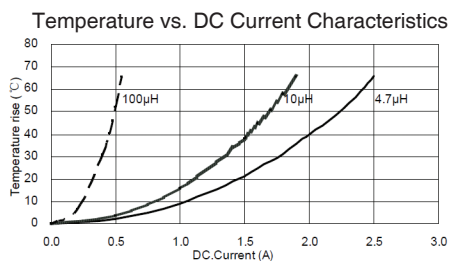




## NPIS43LS Size

Series	Standard Values - Case Size 43 (4.0 x 4.0 x 3.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS52LS Size

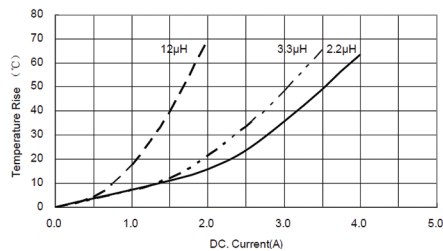
Series	Standard Values - Case Size 52 (5.0 x 5.0 x 2.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS52LSR47YTRF	0.47	±30%	100KHz, 1V	0.013	6.15	4.6	160
NPIS52LSR75YTRF	0.75	±30%	100KHz, 1V	0.017	5.5	4	117
NPIS52LS1R0YTRF	1.0	±30%	100KHz, 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.

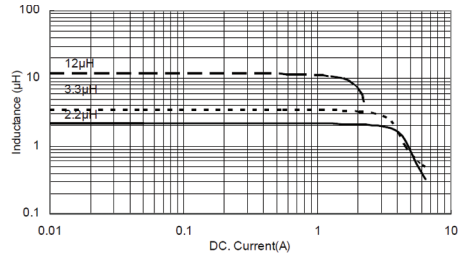


## NPIS52LS Size (Continued)

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

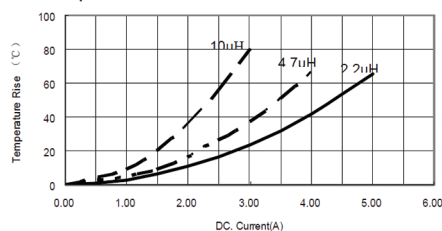


## NPIS54LS Size

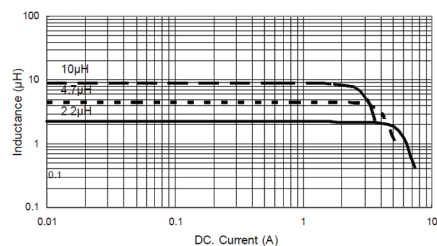
Series	Standard Values - Case Size 54 (5.0 x 5.0 x 4.0mm)						
	Inductance (µH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS54LS1R0YTRF	1.0	±30%	100KHz, 1V	0.012	7.35	4.9	117
NPIS54LS1R5YTRF	1.5	±30%	100KHz, 1V	0.015	6.3	4.3	86
NPIS54LS2R2YTRF	2.2	±30%	100KHz, 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.

Temperature vs. DC Current Characteristics



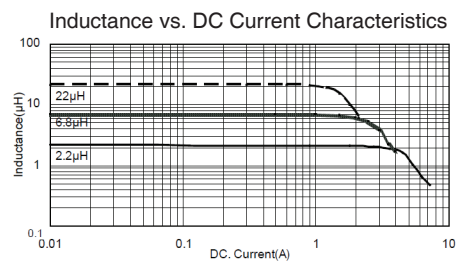
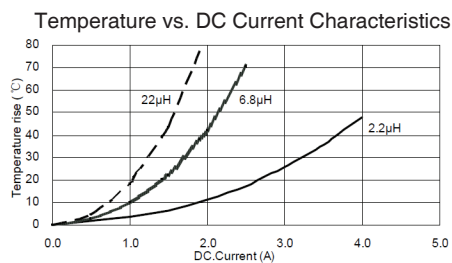
Inductance vs. DC Current Characteristics



## NPIS62LS Size

Series	Standard Values - Case Size 62 (6.0 x 6.0 x 2.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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

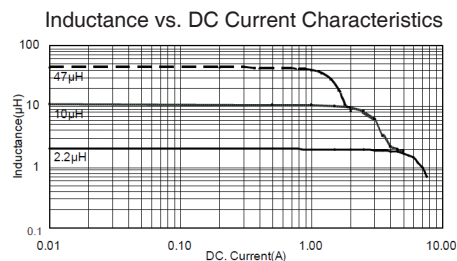
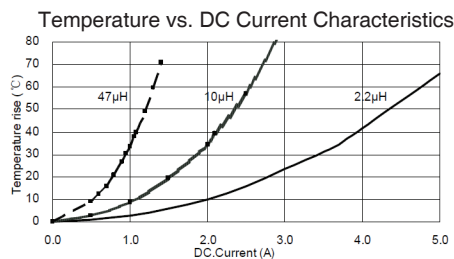
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS63LS Size

Series	Standard Values - Case Size 63 (6.0 x 6.0 x 2.8mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. 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%	Max. Isat (Amps)	Max. 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

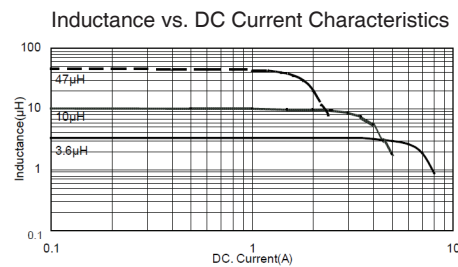
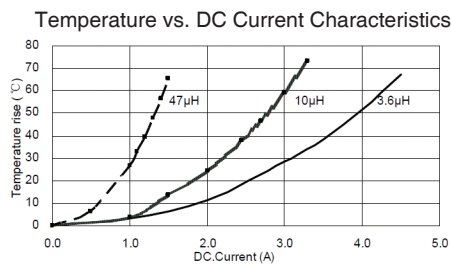
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



## 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%	Max. Isat (Amps)	Max. 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%	Max. Isat (Amps)	Max. 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

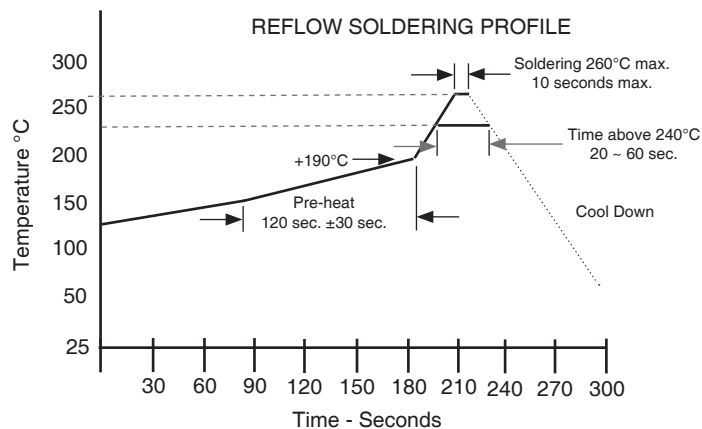
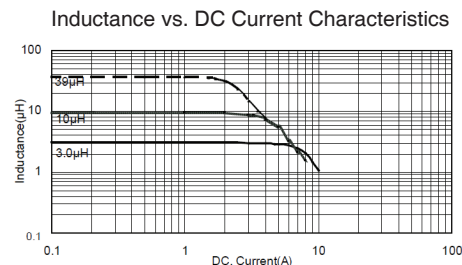
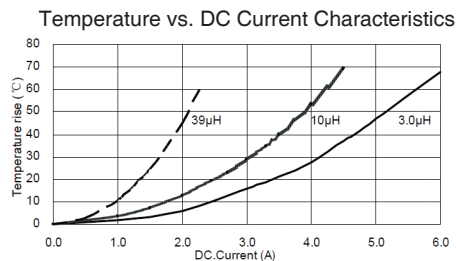
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



## NPIS84LS Size (Continued)

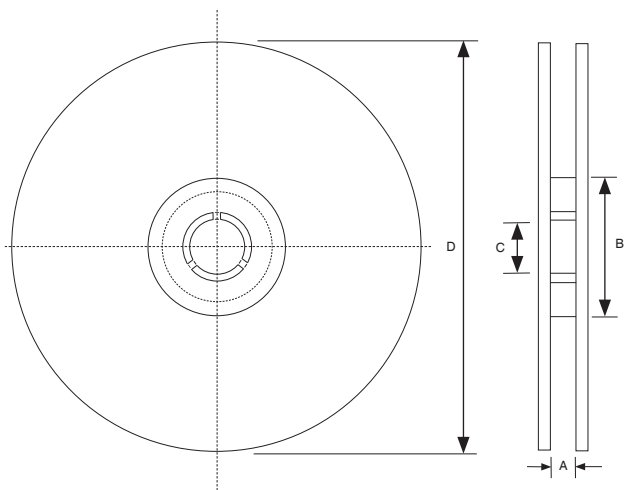
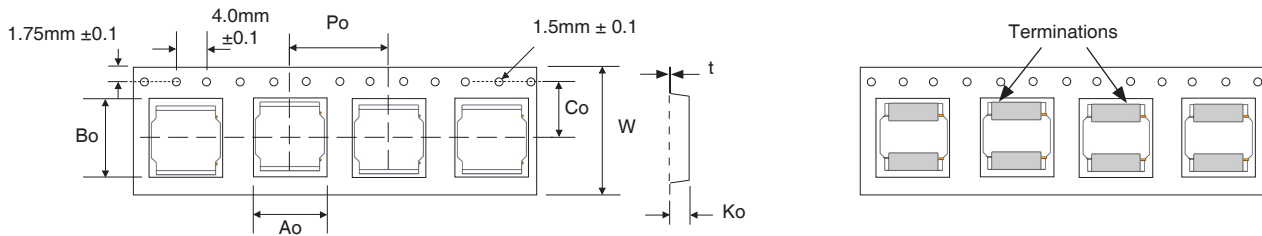
Series	Standard Values - Case Size 84 (8.0 x 8.0 x 4.0mm)						
	Inductance (μH)	Tolerance	Test Conditions	DCR (Ω) ±30%	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS84LS150MTRF	15	±20%	100KHz, 1V	0.047	2.95	2.6	12
NPIS84LS180MTRF	18	±20%	100KHz, 1V	0.053	2.7	2.4	11
NPIS84LS220MTRF	22	±20%	100KHz, 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 Irms. Maximum -30% inductance drop from initial measured value at Isat.





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



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[CGA3E1X7R1C474K](#)