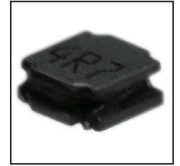


FEATURES

- 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

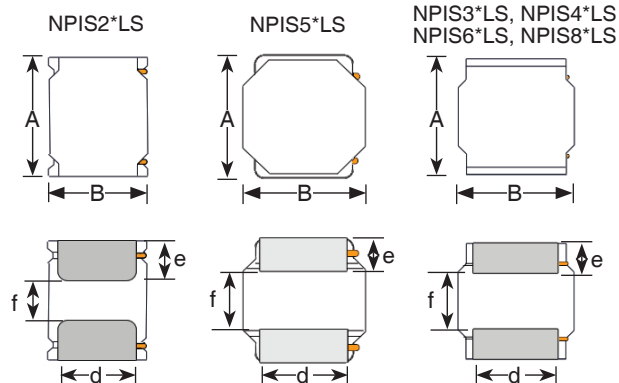


CHARACTERISTICS

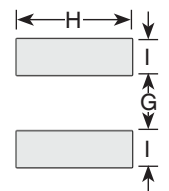
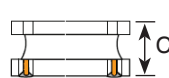
Case Size	NPIS20LS	NPIS21LS	NPIS31LS	NPIS32LS	NPIS35LS
Inductance Range	0.47 ~ 10μH	0.47 ~ 22μH	1.0 ~ 62μH	0.82 ~ 100μH	1.0 ~ 68μH
Case Size	NPIS41LS	NPIS48LS	NPIS42LS	NPIS43LS	NPIS52LS
Inductance Range	0.82 ~ 100μH	1.0 ~ 220μH	1.0 ~ 100μH	0.91 ~ 120μH	0.47 ~ 100μH
Case Size	NPIS54LS	NPIS62LS	NPIS63LS	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			



All Sizes



REFLOW SOLDERING
LAND PATTERN (ALL SIZES)

PART NUMBER SYSTEM

NPIS 31 LS 470 M TR E

RoHS Compliant

Packaging: TR = Tape & Reel
Inductance Tolerance Code: M=±20%
Inductance Code (μH): 1st two digits are significant, 3rd digit is multiplier.
Construction Code (see drawing for details)
Size Code (see table for details)

Series



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

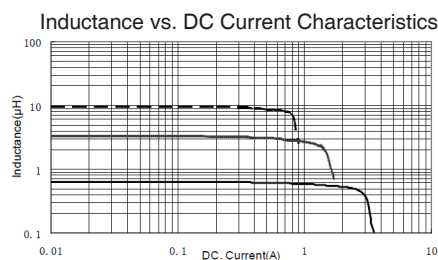
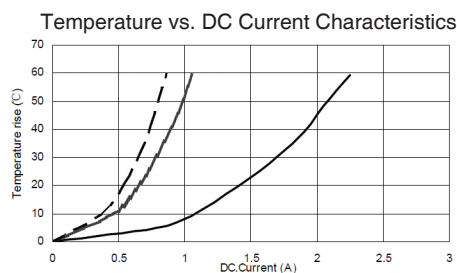
NIC COMPONENTS CORP. www.niccomp.com | www.lowESR.com | www.RFpassives.com | www.SMTmagnetics.com

Specifications are subject to change

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)	Irms (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 Irms. Maximum -30% inductance drop from initial measured value at Isat.



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)	Irms (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

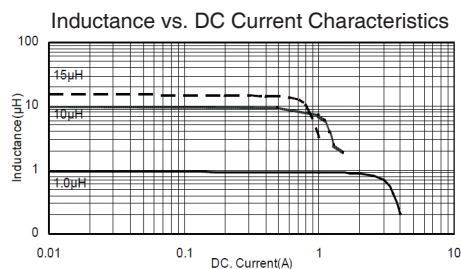
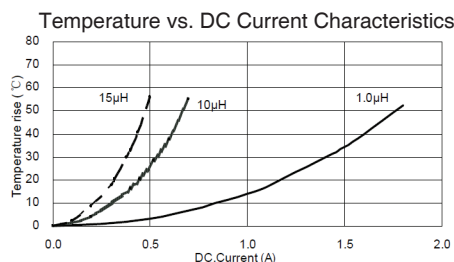
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



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)	Irms (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

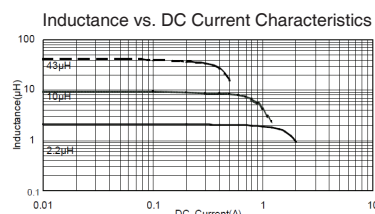
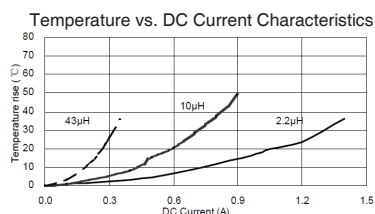
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



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. Irms (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

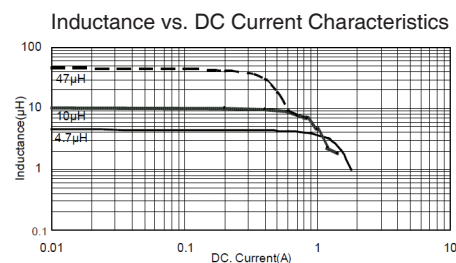
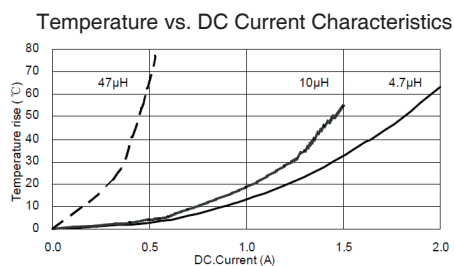
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS32LS Size

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

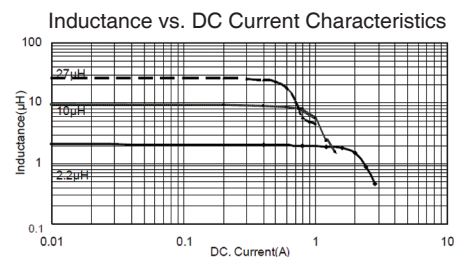
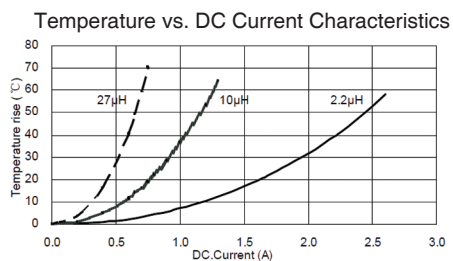
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS35LS Size

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

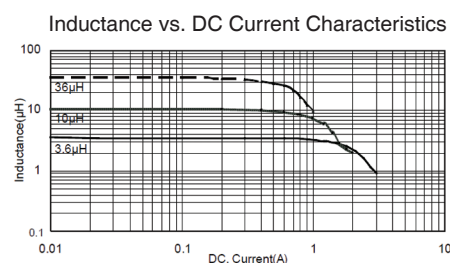
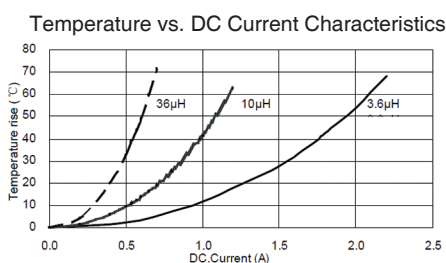
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS41LS Size

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

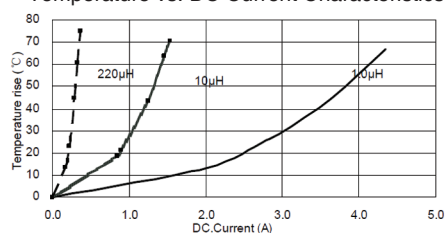


NPIS48LS Size

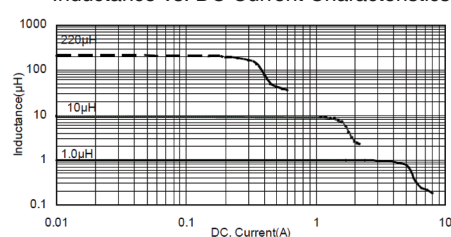
Series	Standard Values - Case Size 48 (4.0 x 4.0 x 1.8mm)						
	Inductance (μ H)	Tolerance	Test Conditions	DCR (Ω) $\pm 30\%$	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS48LS1R0YTRF	1.0	$\pm 30\%$	100KHz, 1V	0.025	4.8	2	80
NPIS48LS2R2MTRF	2.2	$\pm 20\%$	100KHz, 1V	0.045	2.7	1.65	52
NPIS48LS3R3MTRF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



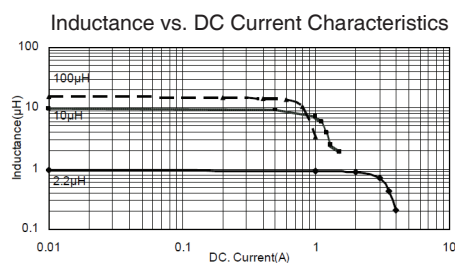
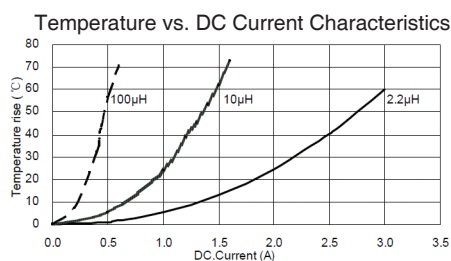
Inductance vs. DC Current Characteristics



NPIS42LS Size

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

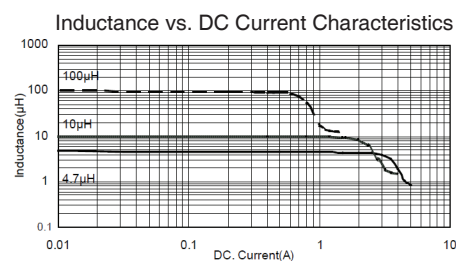
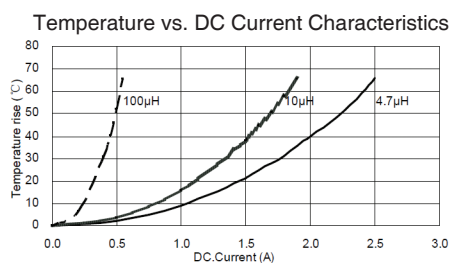
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



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.



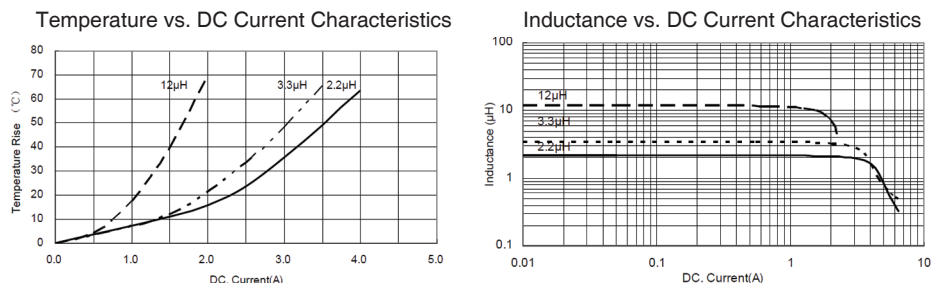
NPIS52LS Size

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.



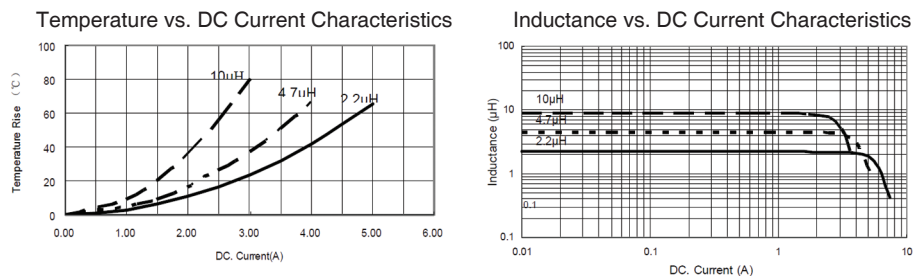
NPIS52LS Size (Continued)



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

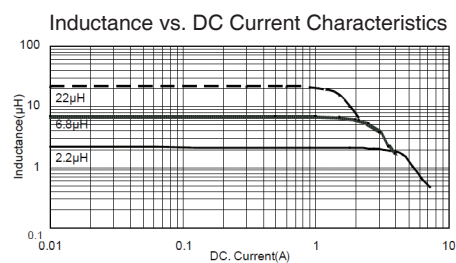
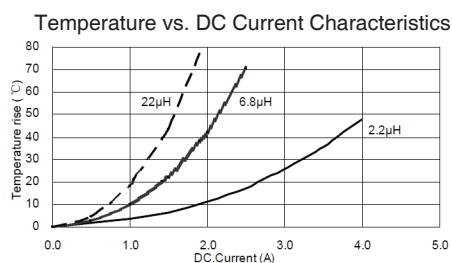
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS62LS Size

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

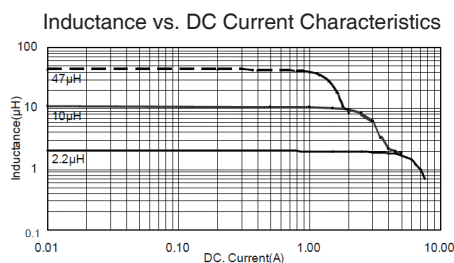
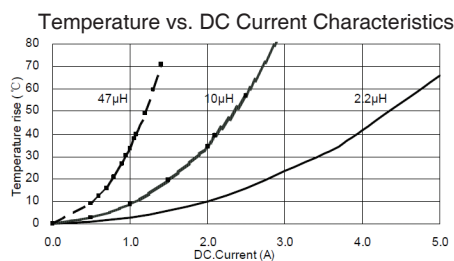
Maximum +40°C temperature rise at Irms. Maximum -30% inductance drop from initial measured value at Isat.



NPIS63LS Size

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

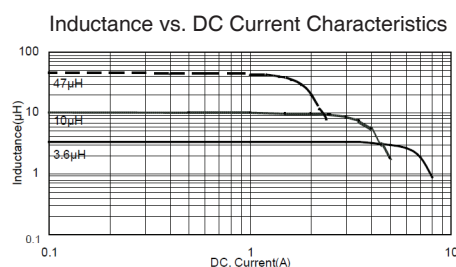
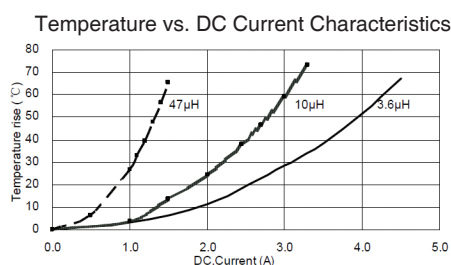
Series	Standard Values - Case Size 65 (6.0 x 6.0 x 4.5mm)						
	Inductance (μ H)	Tolerance	Test Conditions	DCR (Ω) $\pm 30\%$	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS65LSR82YTRF	0.82	$\pm 30\%$	100KHz, 1V	0.008	10.4	5.9	140
NPIS65LS1R0YTRF	1	$\pm 30\%$	100KHz, 1V	0.011	9.85	5.14	100
NPIS65LS1R2YTRF	1.2	$\pm 30\%$	100KHz, 1V	0.01	8.35	5.4	100
NPIS65LS1R5YTRF	1.5	$\pm 30\%$	100KHz, 1V	0.012	8.8	4.95	65
NPIS65LS1R8YTRF	1.8	$\pm 30\%$	100KHz, 1V	0.012	7.6	4.95	74
NPIS65LS2R2YTRF	2.2	$\pm 30\%$	100KHz, 1V	0.014	6.75	4.6	52
NPIS65LS2R3YTRF	2.3	$\pm 30\%$	100KHz, 1V	0.021	6	3.5	60
NPIS65LS2R7YTRF	2.7	$\pm 30\%$	100KHz, 1V	0.015	5.75	4.3	38
NPIS65LS3R0YTRF	3	$\pm 30\%$	100KHz, 1V	0.02	5.6	3.8	35
NPIS65LS3R3YTRF	3.3	$\pm 30\%$	100KHz, 1V	0.021	5.9	3.7	32
NPIS65LS3R6YTRF	3.6	$\pm 30\%$	100KHz, 1V	0.021	5.25	3.7	28
NPIS65LS4R3MTRF	4.3	$\pm 20\%$	100KHz, 1V	0.023	4.45	3.5	23
NPIS65LS4R7MTRF	4.7	$\pm 20\%$	100KHz, 1V	0.026	4.97	3.3	24
NPIS65LS5R1MTRF	5.1	$\pm 20\%$	100KHz, 1V	0.026	4.4	3.3	23
NPIS65LS5R6MTRF	5.6	$\pm 20\%$	100KHz, 1V	0.029	4.15	3.15	23
NPIS65LS6R2MTRF	6.2	$\pm 20\%$	100KHz, 1V	0.031	4.43	3	26
NPIS65LS6R8MTRF	6.8	$\pm 20\%$	100KHz, 1V	0.031	3.9	3	20
NPIS65LS7R5MTRF	7.5	$\pm 20\%$	100KHz, 1V	0.034	3.5	2.9	18
NPIS65LS8R2MTRF	8.2	$\pm 20\%$	100KHz, 1V	0.043	3.9	2.6	21
NPIS65LS9R1MTRF	9.1	$\pm 20\%$	100KHz, 1V	0.043	3.35	2.6	17
NPIS65LS100MTRF	10	$\pm 20\%$	100KHz, 1V	0.048	3.2	2.45	15
NPIS65LS120MTRF	12	$\pm 20\%$	100KHz, 1V	0.058	2.8	2.2	13
NPIS65LS150MTRF	15	$\pm 20\%$	100KHz, 1V	0.068	2.5	2.05	12
NPIS65LS180MTRF	18	$\pm 20\%$	100KHz, 1V	0.081	2.2	1.85	10
NPIS65LS220MTRF	22	$\pm 20\%$	100KHz, 1V	0.089	2.05	1.8	10
NPIS65LS270MTRF	27	$\pm 20\%$	100KHz, 1V	0.102	1.9	1.65	9.2
NPIS65LS300MTRF	30	$\pm 20\%$	100KHz, 1V	0.132	1.7	1.5	7.8
NPIS65LS330MTRF	33	$\pm 20\%$	100KHz, 1V	0.137	1.65	1.45	7.8
NPIS65LS360MTRF	36	$\pm 20\%$	100KHz, 1V	0.173	1.62	1.4	7.8
NPIS65LS390MTRF	39	$\pm 20\%$	100KHz, 1V	0.18	1.5	1.25	7.8
NPIS65LS430MTRF	43	$\pm 20\%$	100KHz, 1V	0.2	1.63	1.2	7.7
NPIS65LS470MTRF	47	$\pm 20\%$	100KHz, 1V	0.2	1.4	1.2	6.4
NPIS65LS510MTRF	51	$\pm 20\%$	100KHz, 1V	0.207	1.35	1.15	6.4
NPIS65LS560MTRF	56	$\pm 20\%$	100KHz, 1V	0.221	1.3	1.1	6.4
NPIS65LS620MTRF	62	$\pm 20\%$	100KHz, 1V	0.235	1.25	1.1	6.4
NPIS65LS680MTRF	68	$\pm 20\%$	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)
NPIS84LSR82YTFR	0.82	±30%	100KHz, 1V	0.008	13.8	6.3	94
NPIS84LS1R0YTFR	1	±30%	100KHz, 1V	0.008	9.85	6.3	89
NPIS84LS1R5YTFR	1.5	±30%	100KHz, 1V	0.01	8.15	5.65	67
NPIS84LS2R0YTFR	2	±30%	100KHz, 1V	0.012	9.25	5.15	43
NPIS84LS2R2YTFR	2.2	±30%	100KHz, 1V	0.012	7.1	5.15	41
NPIS84LS3R0YTFR	3	±30%	100KHz, 1V	0.014	6.1	4.7	32
NPIS84LS3R3YTFR	3.3	±30%	100KHz, 1V	0.017	6.5	4.4	27
NPIS84LS3R6YTFR	3.6	±30%	100KHz, 1V	0.017	7.52	4.35	30
NPIS84LS3R9YTFR	3.9	±30%	100KHz, 1V	0.017	5.75	4.35	26
NPIS84LS4R7YTFR	4.7	±30%	100KHz, 1V	0.019	5.9	4.1	24
NPIS84LS5R1YTFR	5.1	±30%	100KHz, 1V	0.019	4.7	4.05	22
NPIS84LS5R6YTFR	5.6	±30%	100KHz, 1V	0.021	6	3.85	24
NPIS84LS6R2YTFR	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.

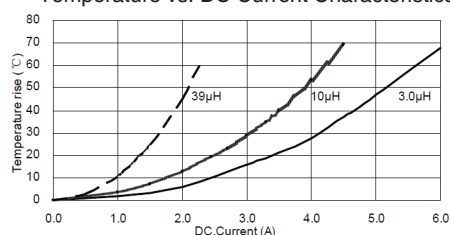


NPIS84LS Size (Continued)

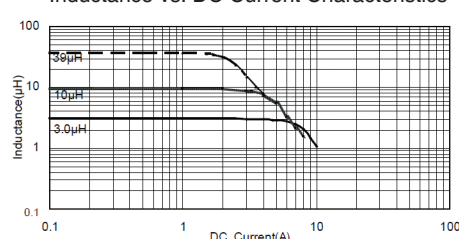
Series	Standard Values - Case Size 84 (8.0 x 8.0 x 4.0mm)						
	Inductance (μ H)	Tolerance	Test Conditions	DCR (Ω) $\pm 30\%$	Max. Isat (Amps)	Max. Irms (Amps)	SRF (MHz)
NPIS84LS150MTRF	15	$\pm 20\%$	100KHz, 1V	0.047	2.95	2.6	12
NPIS84LS180MTRF	18	$\pm 20\%$	100KHz, 1V	0.053	2.7	2.4	11
NPIS84LS220MTRF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

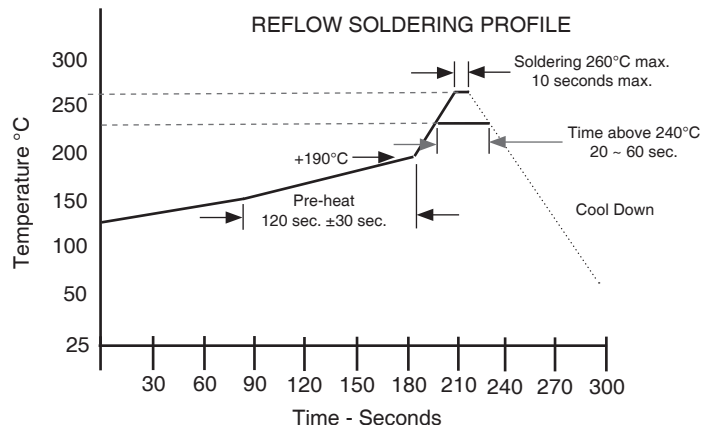
Temperature vs. DC Current Characteristics



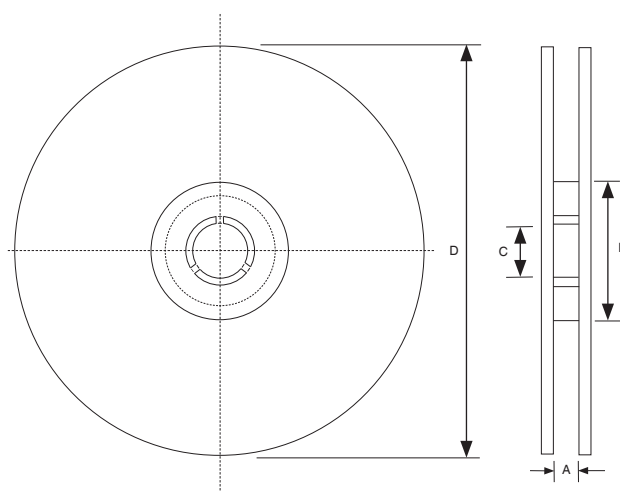
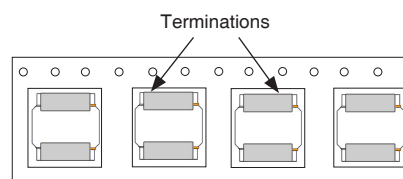
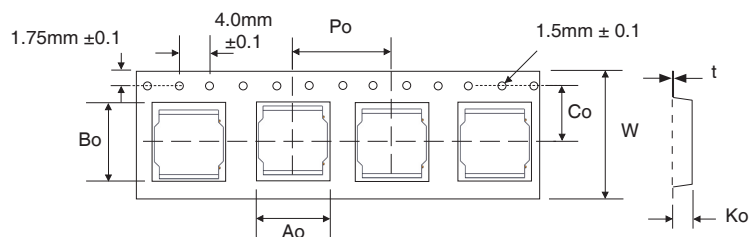
Inductance vs. DC Current Characteristics



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				
NPIS63LS	12.4 +0.2/-0	100 ± 2.0	13.0 +2/-0	330 ± 2.0
NPIS65LS				
NPIS84LS	16.4 +0.2/-0	100 ± 2.0	13.0 +2/-0	330 ± 2.0