

MOLDED BOX CONSTRUCTION, SUPPRESSION CAPACITOR, RADIAL LEAD

FEATURES

- Monolithic & Series Construction, Metallized Polypropylene Capacitors
- Superior Performance over Standard Construction
- "X2" Safety Cap Classification For Use In Across-The-Line Applications and Voltage Dropper Applications
- Wide Cap Range: 0.01 μ F ~ 10 μ F
- High VAC Rating: 300VAC/330VAC
- Safety Agency Listings: UL, cUL, ENEC, CQC
- Tape And Box Packaging Supported

Monolithic and Series Construction X2, 300VAC/330VAC for Voltage Dropper Applications



SPECIFICATIONS (CLASS X2)

Construction Type	Monolithic Construction	Series Construction
Capacitance Range	0.1 μ F ~ 10 μ F	0.01 μ F ~ 2.2 μ F
Operating Temperature	-40°C ~ +110°C	
Rated Voltage	300VAC	300VAC or 330VAC
Capacitance Tolerance	\pm 10% (K) Standard (\pm 5% (J) & \pm 20% (M) Opt.)	
Insulation Resistance (min.)	\leq 0.33 μ F IR > 15,000Megohm @ 100V after 60 sec. >0.33 μ F IR \geq 5,000Megohm/ μ F @ 100V after 60 sec.	
Dissipation Factor	< 0.1% max. @ 1KHz/20°C	
IEC 60068-1 Climatic category (Damp heat, steady state)	40/110/56 Temp. +40°C \pm 2°C with relative humidity (RH): 93% \pm 2% for 56 days	
Dielectric Strength	Between Terminals	1290VDC for 60 second max.
	Between Terminals & Enclosure	2000VAC rms for 2 seconds max.

SAFETY AGENCY APPROVALS

Agency	Standard	Capacitance Values	Voltages	Certificate Number
UL/cUL	UL60384-14	0.01 μ F ~ 10 μ F	300VAC/330VAC	E209251
	CSAE60384-14		300VAC/330VAC	
ENEC	EN60384-14 : 2005 (ed.3)		300VAC/330VAC	SE/12059-1
CQC	IEC60384-14 : 2005		300VAC/330VAC	CQC13001099627

DV/DT RATINGS

Lead-Space (mm)	Construction	10	15	22.5	27.5	32.5	37.5	47.5
DV/DT (V/ μ S)	Monolithic	600	400	150	100	80	50	50
	Series	n/a	450	200	150	100	n/a	n/a

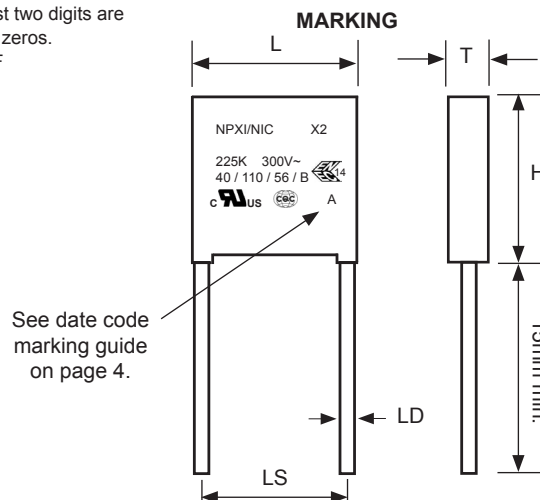
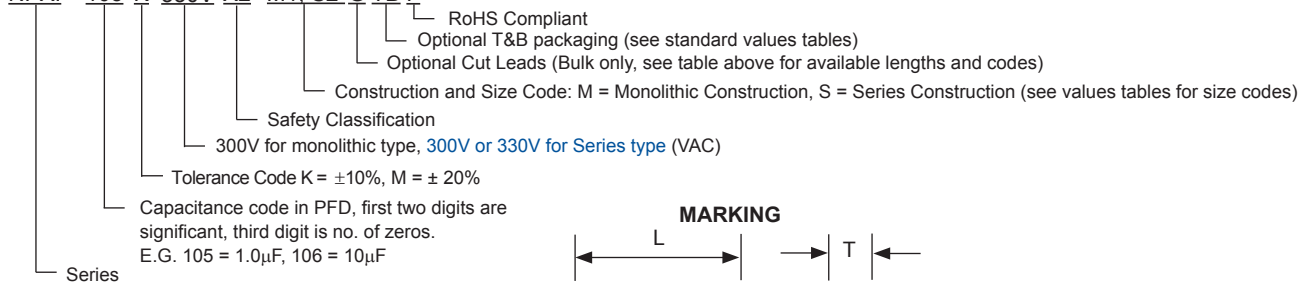
CUT LEAD CODES (BULK PARTS ONLY)

Lead Length*	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Code	A	B	C	D	E	G	H	J	K	L	M

* Lead length \pm 0.5mm

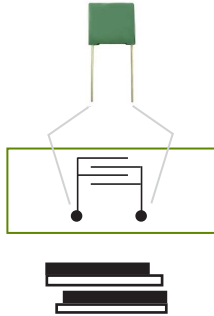
PART NUMBER SYSTEM

NPXI 105 K 330V X2 M1, S2 G T B F



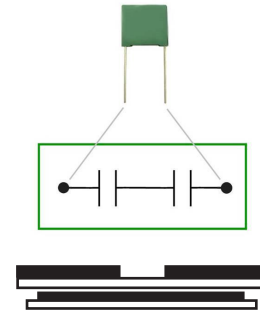
Monolithic Construction

Our NPXI parts with **Monolithic Construction** utilize a thicker plastic film with higher sheet resistance which inhibits the corona phenomenon.

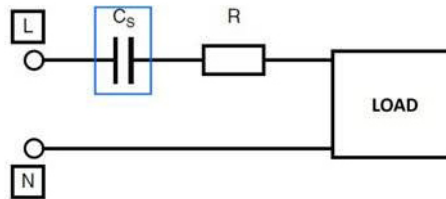


Series Connection

Our NPXI parts with **Series Construction** divide the voltage/current which helps to avoid an over voltage/current condition and corona phenomenon.

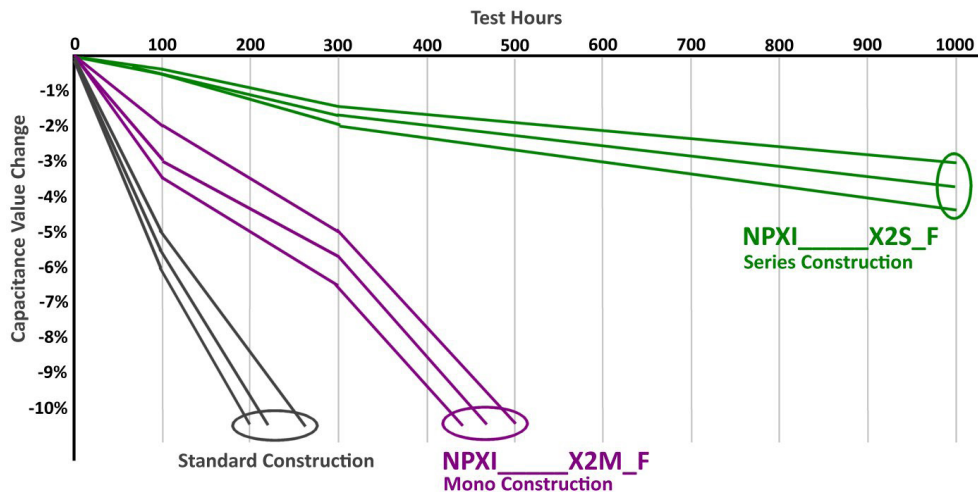


Voltage Dropper - Series Impedance Capacitor Application



Typical Capacitance Change (Standard, Monolithic & Series Construction)

Test Conditions - Voltage: 240VAC, Temperature: +85°C, Relative Humidity: 85%



MONOLITHIC CONSTRUCTION - STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (μF)	Construction Type	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPXI104K300VX2M1F	0.1	Monolithic	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPXI104K300VX2M2F	0.1	Monolithic	±10% (K)	17.0	11.0	5.5	15.0	0.6	500	450
NPXI104K300VX2M3F	0.1	Monolithic	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	-
NPXI124K300VX2M1F	0.12	Monolithic	±10% (K)	18.0	12.0	6.0	15.0	0.8	500	400
NPXI124K300VX2M2F	0.12	Monolithic	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	-
NPXI154K300VX2M1F	0.15	Monolithic	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPXI154K300VX2M2F	0.15	Monolithic	±10% (K)	18.0	13.5	6.0	15.0	0.8	500	400
NPXI154K300VX2M3F	0.15	Monolithic	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	-
NPXI224K300VX2M1F	0.22	Monolithic	±10% (K)	13.0	14.0	8.0	10.0	0.6	500	300
NPXI224K300VX2M2F	0.22	Monolithic	±10% (K)	17.0	15.5	7.5	15.0	0.8	500	300
NPXI224K300VX2M3F	0.22	Monolithic	±10% (K)	18.0	13.5	6.0	15.0	0.8	500	400
NPXI224K300VX2M4F	0.22	Monolithic	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	-
NPXI274K300VX2M1F	0.27	Monolithic	±10% (K)	17.0	15.5	7.5	15.0	0.8	500	300
NPXI274K300VX2M2F	0.27	Monolithic	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	-
NPXI334K300VX2M1F	0.33	Monolithic	±10% (K)	17.0	16.5	9.5	15.0	0.8	400	250
NPXI334K300VX2M2F	0.33	Monolithic	±10% (K)	18.0	14.5	8.5	15.0	0.8	500	250
NPXI334K300VX2M3F	0.33	Monolithic	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	-
NPXI334K300VX2M4F	0.33	Monolithic	±10% (K)	31.5	16.5	7.5	27.5	0.8	100	-
NPXI394K300VX2M1F	0.39	Monolithic	±10% (K)	26.5	17.0	8.5	22.5	0.8	200	-
NPXI474K300VX2M1F	0.47	Monolithic	±10% (K)	17.0	19.0	11.0	15.0	0.8	200	200
NPXI474K300VX2M2F	0.47	Monolithic	±10% (K)	18.0	16.5	8.5	15.0	0.8	200	250
NPXI474K300VX2M3F	0.47	Monolithic	±10% (K)	18.0	18.5	11.1	15.0	0.8	200	200
NPXI474K300VX2M4F	0.47	Monolithic	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	-
NPXI474K300VX2M5F	0.47	Monolithic	±10% (K)	26.5	17.0	8.5	22.5	0.8	200	-
NPXI474K300VX2M6F	0.47	Monolithic	±10% (K)	31.5	16.5	7.5	27.5	0.8	100	-
NPXI524K300VX2M1F	0.52	Monolithic	±10% (K)	25.0	19.0	8.5	22.5	0.8	200	-
NPXI564K300VX2M1F	0.56	Monolithic	±10% (K)	18.0	18.5	11.1	15.0	0.8	200	200
NPXI564K300VX2M2F	0.56	Monolithic	±10% (K)	25.0	19.0	8.5	22.5	0.8	200	-
NPXI564K300VX2M3F	0.56	Monolithic	±10% (K)	26.5	19.0	10.0	22.5	0.8	200	-
NPXI564K300VX2M4F	0.56	Monolithic	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	-
NPXI604K300VX2M1F	0.6	Monolithic	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	-
NPXI684K300VX2M1F	0.68	Monolithic	±10% (K)	17.0	19.0	11.0	15.0	0.8	200	200
NPXI684K300VX2M2F	0.68	Monolithic	±10% (K)	18.0	18.5	11.1	15.0	0.8	200	200
NPXI684K300VX2M3F	0.68	Monolithic	±10% (K)	26.5	19.0	10.0	22.5	0.8	200	-
NPXI684K300VX2M4F	0.68	Monolithic	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	-
NPXI824K300VX2M1F	0.82	Monolithic	±10% (K)	18.0	18.0	10.0	15.0	0.8	200	250
NPXI824K300VX2M2F	0.82	Monolithic	±10% (K)	26.5	19.0	10.0	22.5	0.8	200	-
NPXI824K300VX2M3F	0.82	Monolithic	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	-
NPXI105K300VX2M1F	1.0	Monolithic	±10% (K)	18.0	18.5	11.1	15.0	0.8	200	200
NPXI105K300VX2M2F	1.0	Monolithic	±10% (K)	26.5	19.0	10.0	22.5	0.8	200	-
NPXI105K300VX2M3F	1.0	Monolithic	±10% (K)	30.0	21.0	12.0	27.5	0.8	100	-
NPXI105K300VX2M4F	1.0	Monolithic	±10% (K)	37.0	24.0	13.5	32.5	0.8	50	-
NPXI125K300VX2M1F	1.2	Monolithic	±10% (K)	31.5	22.5	13.0	27.5	0.8	100	-
NPXI125K300VX2M2F	1.2	Monolithic	±10% (K)	37.0	24.0	13.5	32.5	0.8	50	-
NPXI155K300VX2M1F	1.5	Monolithic	±10% (K)	25.0	23.5	14.0	22.5	0.8	100	-
NPXI155K300VX2M2F	1.5	Monolithic	±10% (K)	31.5	25.0	14.0	27.5	0.8	100	-
NPXI155K300VX2M3F	1.5	Monolithic	±10% (K)	36.0	24.0	13.5	32.5	0.8	50	-
NPXI185K300VX2M1F	1.8	Monolithic	±10% (K)	31.5	25.0	14.0	27.5	0.8	100	-
NPXI185K300VX2M2F	1.8	Monolithic	±10% (K)	41.0	26.0	12.0	37.5	1.0	300	-
NPXI225K300VX2M1F	2.2	Monolithic	±10% (K)	26.0	25.0	15.0	22.5	0.8	100	-
NPXI225K300VX2M2F	2.2	Monolithic	±10% (K)	31.5	25.0	14.0	27.5	0.8	100	-
NPXI225K300VX2M3F	2.2	Monolithic	±10% (K)	37.0	26.5	16.0	32.5	0.8	50	-
NPXI225K300VX2M4F	2.2	Monolithic	±10% (K)	41.0	26.0	12.0	37.5	1.0	300	-
NPXI225K300VX2M5F	2.2	Monolithic	±10% (K)	41.0	28.0	14.0	37.5	1.0	250	-
NPXI275K300VX2M1F	2.7	Monolithic	±10% (K)	31.0	31.0	22.0	27.5	0.8	200	-
NPXI275K300VX2M2F	2.7	Monolithic	±10% (K)	37.0	28.5	18.0	32.5	1.0	200	-
NPXI275K300VX2M3F	2.7	Monolithic	±10% (K)	41.0	28.0	14.0	37.5	1.0	250	-

Standard tolerance is ±10% (K). Optional tolerances are ±5% (J) and ±20% (M)



MONOLITHIC CONSTRUCTION - STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (μF)	Construction Type	Standard Tolerance*	L ± 1.0	H ± 1.0	T ± 1.0	LS ± 1.0	LD ± 0.05	Packaging Quantity	
									Bulk	T&B
NPXI335K300VX2M1F	3.3	Monolithic	$\pm 10\%$ (K)	32.0	28.0	18.0	27.5	0.8	50	-
NPXI335K300VX2M2F	3.3	Monolithic	$\pm 10\%$ (K)	35.5	31.0	20.0	32.5	0.8	200	-
NPXI335K300VX2M3F	3.3	Monolithic	$\pm 10\%$ (K)	41.0	30.0	16.0	37.5	1.0	200	-
NPXI335K300VX2M4F	3.3	Monolithic	$\pm 10\%$ (K)	51.0	27.5	17.5	47.5	1.0	170	-
NPXI395K300VX2M1F	3.9	Monolithic	$\pm 10\%$ (K)	41.0	32.0	17.0	37.5	1.0	200	-
NPXI395K300VX2M2F	3.9	Monolithic	$\pm 10\%$ (K)	51.0	27.5	17.5	47.5	1.0	170	-
NPXI475K300VX2M1F	4.7	Monolithic	$\pm 10\%$ (K)	31.0	31.0	22.0	27.5	0.8	200	-
NPXI475K300VX2M2F	4.7	Monolithic	$\pm 10\%$ (K)	37.0	34.0	22.0	32.5	0.8	180	-
NPXI475K300VX2M3F	4.7	Monolithic	$\pm 10\%$ (K)	41.0	33.5	19.5	37.5	1.0	196	-
NPXI475K300VX2M4F	4.7	Monolithic	$\pm 10\%$ (K)	42.0	31.5	18.0	37.5	1.0	200	-
NPXI475K300VX2M5F	4.7	Monolithic	$\pm 10\%$ (K)	51.0	30.5	20.0	47.5	1.0	200	-
NPXI565K300VX2M1F	5.6	Monolithic	$\pm 10\%$ (K)	31.0	31.0	22.0	27.5	0.8	200	-
NPXI565K300VX2M2F	5.6	Monolithic	$\pm 10\%$ (K)	41.0	37.0	22.0	37.5	1.0	150	-
NPXI565K300VX2M3F	5.6	Monolithic	$\pm 10\%$ (K)	51.0	34.0	22.0	47.5	1.0	132	-
NPXI685K300VX2M1F	6.8	Monolithic	$\pm 10\%$ (K)	41.0	37.0	22.0	37.5	1.0	150	-
NPXI685K300VX2M2F	6.8	Monolithic	$\pm 10\%$ (K)	42.0	31.5	18.0	37.5	1.0	200	-
NPXI685K300VX2M3F	6.8	Monolithic	$\pm 10\%$ (K)	51.0	34.0	22.0	47.5	1.0	132	-
NPXI825K300VX2M1F	8.2	Monolithic	$\pm 10\%$ (K)	41.5	41	27.5	37.5	1.0	140	-
NPXI825K300VX2M2F	8.2	Monolithic	$\pm 10\%$ (K)	51.0	43.5	29.0	47.5	1.0	100	-
NPXI106K300VX2M1F	10	Monolithic	$\pm 10\%$ (K)	41.0	43.0	28.0	37.5	1.0	120	-
NPXI106K300VX2M2F	10	Monolithic	$\pm 10\%$ (K)	51.0	43.5	29.0	47.5	1.0	100	-
NPXI106K300VX2M3F	10	Monolithic	$\pm 10\%$ (K)	51.0	49.5	35.0	47.5	1.0	80	-

Standard tolerance is $\pm 10\%$ (K). Optional tolerances are $\pm 5\%$ (J) and $\pm 20\%$ (M)

SERIES CONSTRUCTION - STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (µF)	Construction Type	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPXI103K300VX2S1F	0.01	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI103K330VX2S1F	0.01	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI123K300VX2S1F	0.012	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI123K330VX2S1F	0.012	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI153K300VX2S1F	0.015	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI153K330VX2S1F	0.015	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI183K300VX2S1F	0.018	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI183K330VX2S1F	0.018	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI223K300VX2S1F	0.022	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI223K330VX2S1F	0.022	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI273K300VX2S1F	0.027	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI273K330VX2S1F	0.027	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI333K300VX2S1F	0.033	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI333K330VX2S1F	0.033	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI393K300VX2S1F	0.039	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI393K330VX2S1F	0.039	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI473K300VX2S1F	0.047	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI473K330VX2S1F	0.047	Series	±10% (K)	18	11	5	15	0.6	500	450
NPXI563K300VX2S1F	0.056	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI563K330VX2S1F	0.056	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI683K300VX2S1F	0.068	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI683K330VX2S1F	0.068	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI823K300VX2S1F	0.082	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI823K330VX2S1F	0.082	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI104K300VX2S1F	0.1	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI104K330VX2S1F	0.1	Series	±10% (K)	18	12	6	15	0.8	500	400
NPXI124K300VX2S1F	0.12	Series	±10% (K)	17	15.5	7.5	15	0.8	500	300
NPXI124K330VX2S1F	0.12	Series	±10% (K)	17	15.5	7.5	15	0.8	500	300
NPXI154K300VX2S1F	0.15	Series	±10% (K)	17	15.5	7.5	15	0.8	500	300
NPXI154K330VX2S1F	0.15	Series	±10% (K)	17	15.5	7.5	15	0.8	500	300
NPXI154K300VX2S2F	0.15	Series	±10% (K)	25	14.5	6	22.5	0.8	200	-
NPXI154K330VX2S2F	0.15	Series	±10% (K)	25	14.5	6	22.5	0.8	200	-
NPXI184K300VX2S1F	0.18	Series	±10% (K)	26.5	16.5	7	22.5	0.8	200	-
NPXI184K330VX2S1F	0.18	Series	±10% (K)	26.5	16.5	7	22.5	0.8	200	-
NPXI224K300VX2S1F	0.22	Series	±10% (K)	17	16.5	9.5	15	0.8	400	250
NPXI224K330VX2S1F	0.22	Series	±10% (K)	17	16.5	9.5	15	0.8	400	250
NPXI224K300VX2S2F	0.22	Series	±10% (K)	26.5	16.5	7	22.5	0.8	200	-
NPXI224K330VX2S2F	0.22	Series	±10% (K)	26.5	16.5	7	22.5	0.8	200	-
NPXI274K300VX2S1F	0.27	Series	±10% (K)	25	19	8.5	22.5	0.8	200	-
NPXI274K330VX2S1F	0.27	Series	±10% (K)	25	19	8.5	22.5	0.8	200	-
NPXI334K300VX2S1F	0.33	Series	±10% (K)	18	21	12	15	0.8	200	200
NPXI334K330VX2S1F	0.33	Series	±10% (K)	18	21	12	15	0.8	200	200
NPXI334K300VX2S2F	0.33	Series	±10% (K)	25	19	8.5	22.5	0.8	200	-
NPXI334K330VX2S2F	0.33	Series	±10% (K)	25	19	8.5	22.5	0.8	200	-
NPXI394K300VX2S1F	0.39	Series	±10% (K)	26.5	19	10	22.5	0.8	200	-
NPXI394K330VX2S1F	0.39	Series	±10% (K)	26.5	19	10	22.5	0.8	200	-
NPXI474K300VX2S1F	0.47	Series	±10% (K)	26.5	19	10	22.5	0.8	200	-
NPXI474K330VX2S1F	0.47	Series	±10% (K)	26.5	19	10	22.5	0.8	200	-
NPXI474K300VX2S2F	0.47	Series	±10% (K)	30.5	18.5	10	27.5	0.8	100	-
NPXI474K330VX2S2F	0.47	Series	±10% (K)	30.5	18.5	10	27.5	0.8	100	-
NPXI564K300VX2S1F	0.56	Series	±10% (K)	30	21	12	27.5	0.8	100	-
NPXI564K330VX2S1F	0.56	Series	±10% (K)	30	21	12	27.5	0.8	100	-
NPXI684K300VX2S1F	0.68	Series	±10% (K)	26	21.5	12	22.5	0.8	100	-
NPXI684K330VX2S1F	0.68	Series	±10% (K)	26	21.5	12	22.5	0.8	100	-
NPXI684K300VX2S2F	0.68	Series	±10% (K)	30	21	12	27.5	0.8	100	-
NPXI684K330VX2S2F	0.68	Series	±10% (K)	30	21	12	27.5	0.8	100	-
NPXI824K300VX2S3F	0.82	Series	±10% (K)	31.5	22.5	13	27.5	0.8	100	-
NPXI824K330VX2S3F	0.82	Series	±10% (K)	31.5	22.5	13	27.5	0.8	100	-



SERIES CONSTRUCTION - STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (µF)	Construction Type	Standard Tolerance*	L	H	T	LS	LD	Packaging Quantity	
				±1.0	±1.0	±1.0	±1.0	±0.05	Bulk	T&B
NPXI105K300VX2S1F	1.0	Series	±10% (K)	26	25	15	22.5	0.8	100	-
NPXI105K330VX2S1F	1.0	Series	±10% (K)	26	25	15	22.5	0.8	100	-
NPXI105K300VX2S2F	1.0	Series	±10% (K)	31.5	25	14	27.5	0.8	100	-
NPXI105K330VX2S2F	1.0	Series	±10% (K)	31.5	25	14	27.5	0.8	100	-
NPXI125K300VX2S1F	1.2	Series	±10% (K)	41	26	12	37.5	1.0	300	-
NPXI125K330VX2S1F	1.2	Series	±10% (K)	41	26	12	37.5	1.0	300	-
NPXI155K300VX2S1F	1.5	Series	±10% (K)	32	28	18	27.5	0.8	50	-
NPXI155K330VX2S1F	1.5	Series	±10% (K)	32	28	18	27.5	0.8	50	-
NPXI155K300VX2S2F	1.5	Series	±10% (K)	41	26	12	37.5	1.0	300	-
NPXI155K330VX2S2F	1.5	Series	±10% (K)	41	26	12	37.5	1.0	300	-
NPXI185K300VX2S1F	1.8	Series	±10% (K)	41	28	14	37.5	1.0	250	-
NPXI185K330VX2S1F	1.8	Series	±10% (K)	41	28	14	37.5	1.0	250	-
NPXI225K300VX2S1F	2.2	Series	±10% (K)	31	31	22	27.5	0.8	200	-
NPXI225K330VX2S1F	2.2	Series	±10% (K)	31	31	22	27.5	0.8	200	-
NPXI225K300VX2S2F	2.2	Series	±10% (K)	41	32	17	37.5	1.0	200	-
NPXI225K330VX2S2F	2.2	Series	±10% (K)	41	32	17	37.5	1.0	200	-

ENVIRONMENTAL CHARACTERISTICS

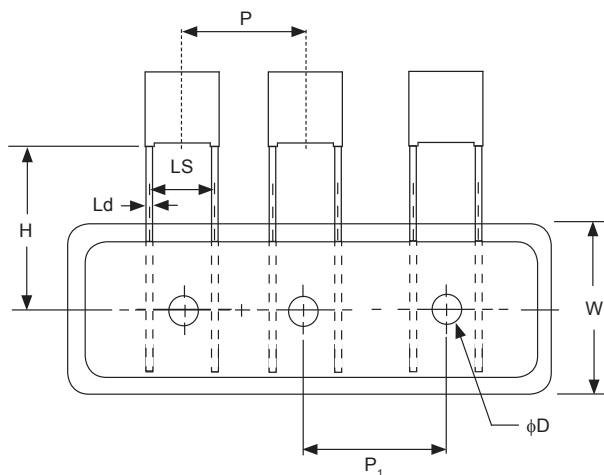
Item	Test Method	Standard
Endurance	+110°C±2°C, 125% of RV for 1,000 hours (Voltage applied through 47Ω ± 5% resistor, every hour voltaged increased to 1,000Vrms for 0.1 seconds).	Physical: No remarkable physical Capacitance: Within ±10% of initial measured value DF: ≤ 0.5%, IR ≥ 50% of specified value
Moisture Resistance	+40°C±2°C, Rated Voltage, 87% ~ 93% RH, 500 hours. (Part stabilized at room temperature for 1.5 ± 0.5 hours before taking measurements)	Physical: No remarkable physical Capacitance: Within ±5% of initial measured value DF: ≤ 0.2%, IR ≥ 50% of specified value
Temperature Cycling	A total of 5 cycles. Each cycle includes: 1. +20 ± 2°C for 3 minutes 2. -40 ± 3°C for 30 minutes 3. +20 ± 2°C for 3 minutes 4. +110 ± 2°C for 30 minutes 5. +20 ± 2°C for 3 minutes After test allow parts to stabilized at room temperature for 1.5 ± 0.5 hours before taking measurements.	Physical: No remarkable physical Capacitance: Within ±5% of initial measured value DF: ≤ 0.2%, IR ≥ 50% of specified value
Resistance to Dry Heat	+110 ± 2°C for 16 +1/-0 hours	Physical: No remarkable physical Capacitance: Within ±5% of initial measured value DF: ≤ 0.2%, IR ≥ 50% of specified value
Resistance to Cold	-40°C for 2 hours	Physical: No remarkable physical Capacitance: Within ±5% of initial measured value DF: ≤ 0.2%, IR ≥ 50% of specified value
Resistance to Soldering Heat	Preheat: +100°C ~ +120°C (60 seconds max). Ramp-up rate: 3°C per second max. Peak soldering temperature: +260 ± 5°C for 5 seconds max. Immersion depth: 4.8mm max from base of component (Part stabilized at room temperature for 1.5 ± 0.5 hours before taking measurements)	Physical: No remarkable physical Capacitance: Within ±5% of initial measured value DF: ≤ 0.2%, IR ≥ 50% of specified value
Vibration	Frequency: 10-55-10Hz Magnitude: 1.5mm in X, Y and Z directions Duration: 2 +1/-0 hours in each direction	No short/open circuit and stable connection
Terminal Strength	Apply 1.0Kg of force for 10 ± 1 seconds to the terminal in the axial direction away from the body of the part.	No abnormalities

DATE CODE MARKING

Year	Month	Code	Year	Month	Code	Year	Month	Code	Year	Month	Code
2016	Jan.	n	2017	Jan.	A	2018	Jan.	N	2019	Jan.	a
	Feb.	p		Feb.	B		Feb.	P		Feb.	b
	Mar.	q		Mar.	C		Mar.	Q		Mar.	c
	Apr.	r		Apr.	D		Apr.	R		Apr.	d
	May.	s		May.	E		May.	S		May.	e
	Jun.	t		Jun.	F		Jun.	T		Jun.	f
	Jul.	u		Jul.	G		Jul.	U		Jul.	g
	Aug.	v		Aug.	H		Aug.	V		Aug.	h
	Sept.	w		Sept.	J		Sept.	W		Sept.	j
	Oct.	x		Oct.	K		Oct.	X		Oct.	k
	Nov.	y		Nov.	L		Nov.	Y		Nov.	l
	Dec.	z		Dec.	M		Dec.	Z		Dec.	m

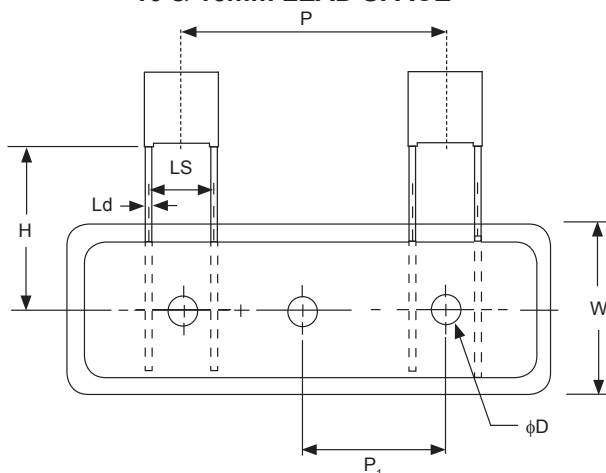
AMMO PACK (TB) TAPING DIMENSIONS 7.5mm LEAD SPACE

Item	Dimension (mm)
H	18.5 ± 1.0
Ld	0.60 ± 0.1
LS	7.5 ± 1.0
P	12.7 ± 1.5
P ₁	12.7 ± 0.3
W	18.0 ± 1.0
φD ₁	4.0 ± 0.3



AMMO PACK (TB) TAPING DIMENSIONS 10 & 15mm LEAD SPACE

Item	Dimension (mm)	
H	18.5 ± 1.0	
Ld	0.60 ± 0.1	0.60/0.80 ± 0.1
LS	10.0 ± 1.0	15.0 ± 1.0
P	25.4 ± 1.5	
P ₁	12.7 ± 0.3	
W	18.0 ± 1.0	
φD ₁	4.0 ± 0.3	



AMMO PACK BOX DIMENSIONS

Item	Dimension (mm)
A	270
B	50
C	330

