

# Interference Suppression Capacitor

NPYT Series

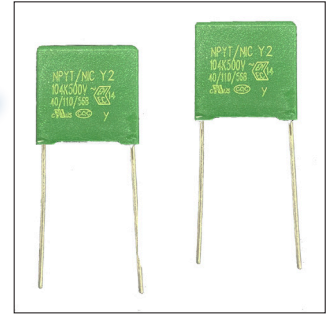
MOLDED BOX CONSTRUCTION, SUPPRESSION CAPACITOR, RADIAL LEAD

## FEATURES

- Self-Healing Construction
- Y1 & Y2 Class Safety Capacitors (See pages 8~12 for Y1 Values, Sizes and Specifications)
- High VAC Rating: 250VAC~500VAC
- High Withstanding Voltage; 2000VAC or 4000VDC
- Safety Agency Listed: UL, cUL, ENEC, CQC
- IEC 60068-1 Climatic category 40/110/56

**Expanded Voltage Range**

**HIGH VOLTAGE  
Y1 & Y2 250~500VAC  
Safety Capacitors**



## SPECIFICATIONS (CLASS Y2)

Operating Temperature		-40°C ~ +110°C	
Rated Voltage		250/275/300VAC/310/330/350/400/440/480/500VAC	
Capacitance Range		470pF ~ 4.7μF	
Capacitance Tolerance		±5% (J), ±10% (K), ±20% (M)	
Insulation Resistance (min.)	C ≤ 0.33μF > 15,000Megohm	100V ~ 480V 60 sec. @ 100VDC 500V 60 sec. @ 500VDC	
	C > 0.33μF > 5,000Megohm	All 60 sec. @ 500VDC	
Dissipation Factor		< 0.1% max. @ 1KHz/20°C	
IEC 60068-1 Climatic category (Damp heat, steady state)		40/110/56 Temp. +40°C ± 2°C with relative humidity (RH): 93% ±2% for 56 days	
Dielectric Strength	Between Terminals	2,000VAC for 2 sec. or 4,000VDC for 2 sec.	
	Between Terminals & Enclosure	2,100 VAC for 5 sec. max.	

## SAFETY AGENCY APPROVALS

Agency	Standard	Capacitance Values	Voltages	Certificate Number
UL/cUL	UL60384-14 CSAE60384-14	470pF ~ 4.7μF	250/275/300/310/330/350/400/440/480/500VAC	E209251
ENEC	EN60384-14 : 2005 (ed.3)		250/275/300/310/330/350/400/440/480/500VAC	SE/12059-1A
CQC	IEC60384-14 : 2005		250/275/300/310/330/350/400/440/480/500VAC	CQC13001099626

## DV/DT RATINGS

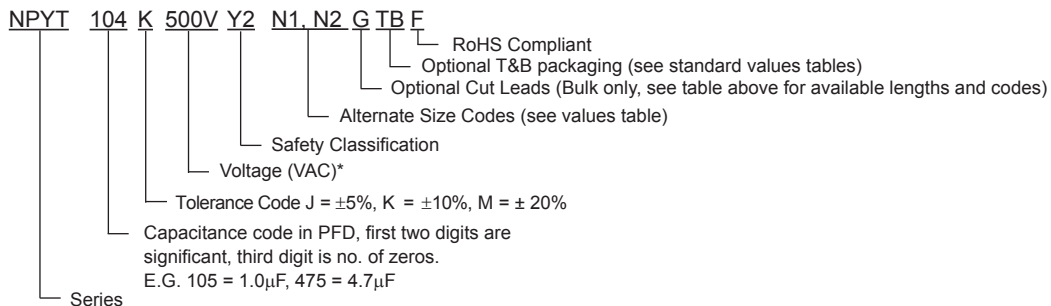
Lead-Space (mm)	7.5	10	15	22.5	27.5	32.5	37.5	47.5	51.5
DV/DT (V/μS)	1000	800	600	500	400	350	300	200	150

## 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 ±0.5mm

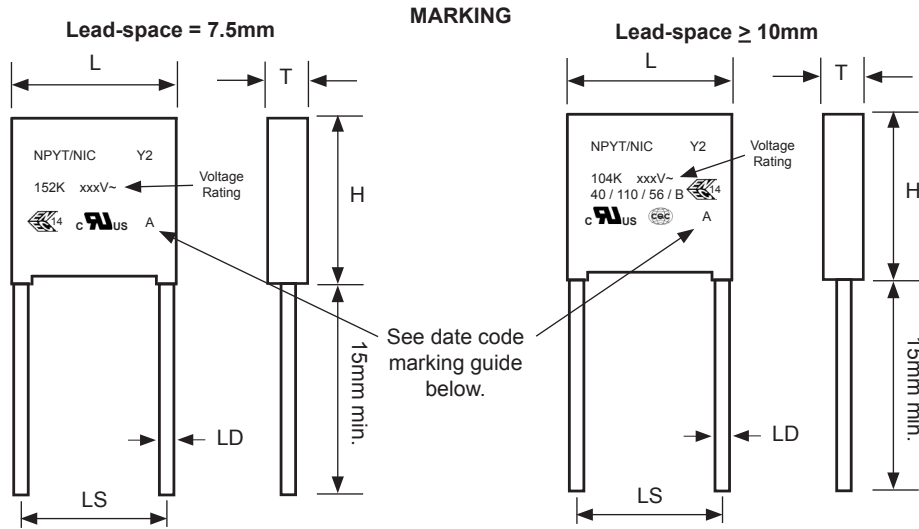
## PART NUMBER SYSTEM



Parts are available marked with voltage ratings 250/275/300/310/330/350/400/440/480 (same size).  
Modify part number as shown below:

NPYT473K250VY2N1F for 250V part in N1 size  
 NPYT473K275VY2N1F for 275V part in N1 size  
 NPYT473K300VY2N1F for 300V part in N1 size, etc.

NPYT474K250VY2N5F for 250V part in N5 size  
 NPYT474K275VY2N5F for 275V part in N5 size  
 NPYT474K300VY2N5F for 300V part in N5 size, etc.



### DATE CODE MARKING

Year	Month	Code	Year	Month	Code	Year	Month	Code	Year	Month	Code
2020	Jan.	n	2021	Jan.	A	2022	Jan.	N	2023	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

## 500VAC STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (µF)	Capacitance Code	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPYT471K500VY2N1F	0.00047	471	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT471K500VY2N2F	0.00047	471	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT471K500VY2N3F	0.00047	471	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT561K500VY2N1F	0.00056	561	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT561K500VY2N2F	0.00056	561	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT561K500VY2N3F	0.00056	561	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT681K500VY2N1F	0.00068	681	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT681K500VY2N2F	0.00068	681	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT681K500VY2N3F	0.00068	681	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT821K500VY2N1F	0.00082	821	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT821K500VY2N2F	0.00082	821	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT821K500VY2N3F	0.00082	821	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT102K500VY2N1F	0.001	102	±10% (K)	10.0	9.0	4.0	7.5	0.6	1,000	1,300
NPYT102K500VY2N4F	0.001	102	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT102K500VY2N2F	0.001	102	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT102K500VY2N3F	0.001	102	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT122K500VY2N1F	0.0012	122	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT122K500VY2N2F	0.0012	122	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT152K500VY2N1F	0.0015	152	±10% (K)	10.0	9.0	4.0	7.5	0.6	1,000	1,300
NPYT152K500VY2N4F	0.0015	152	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT152K500VY2N2F	0.0015	152	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT152K500VY2N3F	0.0015	152	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT182K500VY2N1F	0.0018	182	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT182K500VY2N2F	0.0018	182	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT182K500VY2N3F	0.0018	182	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT222K500VY2N4F	0.0022	222	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT222K500VY2N1F	0.0022	222	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT222K500VY2N5F	0.0022	222	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT222K500VY2N2F	0.0022	222	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT222K500VY2N6F	0.0022	222	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT222K500VY2N3F	0.0022	222	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT272K500VY2N4F	0.0027	272	±10% (K)	10.5	9.0	4.0	7.5	0.6	1,000	1,300
NPYT272K500VY2N1F	0.0027	272	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT272K500VY2N5F	0.0027	272	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT272K500VY2N2F	0.0027	272	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT272K500VY2N6F	0.0027	272	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT272K500VY2N3F	0.0027	272	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT332K500VY2N1F	0.0033	332	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT332K500VY2N4F	0.0033	332	±10% (K)	13.0	9.0	4.0	10.0	0.6	500	650
NPYT332K500VY2N2F	0.0033	332	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT332K500VY2N5F	0.0033	332	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT332K500VY2N3F	0.0033	332	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT392K500VY2N1F	0.0039	392	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT392K500VY2N2F	0.0039	392	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT392K500VY2N5F	0.0039	392	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT392K500VY2N3F	0.0039	392	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT472K500VY2N1F	0.0047	472	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT472K500VY2N2F	0.0047	472	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT472K500VY2N4F	0.0047	472	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT472K500VY2N3F	0.0047	472	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT562K500VY2N1F	0.0056	562	±10% (K)	10.5	11.0	5.0	7.5	0.6	1,000	1,300
NPYT562K500VY2N2F	0.0056	562	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT562K500VY2N4F	0.0056	562	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT562K500VY2N3F	0.0056	562	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT682K500VY2N1F	0.0068	682	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPYT682K500VY2N3F	0.0068	682	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT682K500VY2N2F	0.0068	682	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450

\*Also available in ±5% (J) and ±20% (M) tolerance and voltage ratings 250/275/300/310/330/350/400/440/480 (Same Size)



## 500VAC STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (µF)	Capacitance Code	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPYT822K500VY2N1F	0.0082	822	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPYT822K500VY2N3F	0.0082	822	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT822K500VY2N2F	0.0082	822	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT103K500VY2N1F	0.01	103	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPYT103K500VY2N3F	0.01	103	±10% (K)	17.5	9.5	5.0	15.0	0.6	500	450
NPYT103K500VY2N2F	0.01	103	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT123K500VY2N1F	0.012	123	±10% (K)	13.0	12.0	6.0	10.0	0.6	500	450
NPYT123K500VY2N2F	0.012	123	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT153K500VY2N1F	0.015	153	±10% (K)	13.0	11.0	5.0	10.0	0.6	500	500
NPYT153K500VY2N2F	0.015	153	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT183K500VY2N1F	0.018	183	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT223K500VY2N2F	0.022	223	±10% (K)	13.0	13.0	7.0	10.0	0.6	500	400
NPYT223K500VY2N3F	0.022	223	±10% (K)	17.0	11.0	5.5	15.0	0.6	500	450
NPYT273K500VY2N2F	0.027	273	±10% (K)	13.0	14.0	8.0	10.0	0.6	500	300
NPYT273K500VY2N3F	0.027	273	±10% (K)	17.0	11.0	5.5	15.0	0.6	500	450
NPYT273K500VY2N4F	0.027	273	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT333K500VY2N2F	0.033	333	±10% (K)	13.0	14.0	8.0	10.0	0.6	500	300
NPYT333K500VY2N1F	0.033	333	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT333K500VY2N3F	0.033	333	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT393K500VY2N1F	0.039	393	±10% (K)	18.0	13.5	6.0	15.0	0.6	500	400
NPYT393K500VY2N2F	0.039	393	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT473K500VY2N1F	0.047	473	±10% (K)	18.0	13.5	6.0	15.0	0.6	500	400
NPYT473K500VY2N2F	0.047	473	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT563K500VY2N3F	0.056	563	±10% (K)	17.0	15.5	7.5	15.0	0.6	500	300
NPYT563K500VY2N2F	0.056	563	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT683K500VY2N2F	0.068	683	±10% (K)	17.0	15.5	7.5	15.0	0.6	500	300
NPYT683K500VY2N3F	0.068	683	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT683K500VY2N4F	0.068	683	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	N/A
NPYT823K500VY2N2F	0.082	823	±10% (K)	17.0	16.5	9.5	15.0	0.6	400	250
NPYT823K500VY2N3F	0.082	823	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	N/A
NPYT104K500VY2N4F	0.1	104	±10% (K)	17.0	16.5	9.5	15.0	0.6	400	250
NPYT104K500VY2N2F	0.1	104	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	N/A
NPYT104K500VY2N5F	0.1	104	±10% (K)	26.5	29.5	14.5	22.5	0.8	80	N/A
NPYT104K500VY2N3F	0.1	104	±10% (K)	31.5	16.5	7.5	27.5	0.8	100	N/A
NPYT124K500VY2N1F	0.12	124	±10% (K)	26.5	17.0	8.5	22.5	0.8	200	N/A
NPYT124K500VY2N2F	0.12	124	±10% (K)	31.0	18.0	9.0	27.5	0.8	120	N/A
NPYT154K500VY2N1F	0.15	154	±10% (K)	26.5	19.0	10.0	22.5	0.8	200	N/A
NPYT154K500VY2N2F	0.15	154	±10% (K)	31.0	18.0	9.0	27.5	0.8	120	N/A
NPYT154K500VY2N3F	0.15	154	±10% (K)	32.0	12.0	18.0	27.5	0.8	100	N/A
NPYT184K500VY2N1F	0.18	184	±10% (K)	26.0	20.0	11.0	22.5	0.8	80	N/A
NPYT184K500VY2N2F	0.18	184	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	N/A
NPYT224K500VY2N1F	0.22	224	±10% (K)	26.5	21.5	12.0	22.5	0.8	100	N/A
NPYT224K500VY2N2F	0.22	224	±10% (K)	30.0	21.0	12.0	27.5	0.8	100	N/A
NPYT224K500VY2N3F	0.22	224	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	N/A
NPYT224M500VY2N4F	0.22	224	±20% (M)	32.0	12.0	18.0	27.5	0.8	100	N/A
NPYT274K500VY2N1F	0.27	274	±10% (K)	26.5	22.5	12.5	22.5	0.8	100	N/A
NPYT274M500VY2N2F	0.27	274	±20% (M)	31.5	20.0	11.0	27.5	0.8	100	N/A
NPYT274K500VY2N3F	0.27	274	±10% (K)	31.5	22.5	13.0	27.5	0.8	100	N/A
NPYT334K500VY2N1F	0.33	334	±10% (K)	26.0	25.0	15.0	22.5	0.8	100	N/A
NPYT334K500VY2N2F	0.33	334	±10% (K)	26.5	29.5	14.5	22.5	0.8	80	N/A
NPYT334K500VY2N3F	0.33	334	±10% (K)	31.0	24.5	15.0	27.5	0.8	100	N/A
NPYT334K500VY2N4F	0.33	334	±10% (K)	31.5	22.5	13.0	27.5	0.8	100	N/A
NPYT334K500VY2N5F	0.33	334	±10% (K)	31.5	25.0	14.0	27.5	0.8	100	N/A
NPYT334K500VY2N6F	0.33	334	±10% (K)	32.0	12.0	22.0	27.5	0.8	100	N/A
NPYT334K500VY2N7F	0.33	334	±10% (K)	37.0	24.0	13.5	32.5	0.8	50	N/A
NPYT334K500VY2N8F	0.33	334	±10% (K)	41.5	22.0	12.0	37.5	0.8	300	N/A

\*Also available in ±5% (J) and ±20% (M) tolerance and voltage ratings 250/275/300/310/330/350/400/440/480 (Same Size)



## 500V STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (µF)	Capacitance Code	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPYT394K500VY2N1F	0.39	394	±10% (K)	26.0	25.0	15.0	22.5	0.8	100	N/A
NPYT394K500VY2N2F	0.39	394	±10% (K)	26.5	29.5	14.5	22.5	0.8	80	N/A
NPYT394K500VY2N3F	0.39	394	±10% (K)	31.0	24.5	15.0	27.5	0.8	100	N/A
NPYT394K500VY2N4F	0.39	394	±10% (K)	32.0	28.0	14.0	27.5	0.8	100	N/A
NPYT394K500VY2N5F	0.39	394	±10% (K)	37.0	24.0	13.5	32.5	0.8	50	N/A
NPYT394K500VY2N7F	0.39	394	±10% (K)	41.0	24.0	13.0	37.5	0.8	300	N/A
NPYT394K500VY2N8F	0.39	394	±10% (K)	41.5	22.0	12.0	37.5	0.8	300	N/A
NPYT394K500VY2N9F	0.39	394	±10% (K)	41.5	26.0	14.5	37.5	0.8	250	N/A
NPYT474M500VY2N1F	0.47	474	±20% (M)	31.0	24.5	15.0	27.5	0.8	100	N/A
NPYT474M500VY2N3F	0.47	474	±20% (M)	32.0	28.0	14.0	27.5	0.8	100	N/A
NPYT474K500VY2N5F	0.47	474	±10% (K)	32.0	30.0	15.0	27.5	0.8	100	N/A
NPYT474K500VY2N4F	0.47	474	±10% (K)	32.0	28.0	18.0	27.5	0.8	100	N/A
NPYT474K500VY2N2F	0.47	474	±10% (K)	32.0	16.0	27.5	27.5	0.8	100	N/A
NPYT474K500VY2N6F	0.47	474	±10% (K)	37.0	24.0	13.5	32.5	0.8	50	N/A
NPYT474K500VY2N7F	0.47	474	±10% (K)	37.0	26.5	16.0	32.5	0.8	50	N/A
NPYT474K500VY2N8F	0.47	474	±10% (K)	41.0	24.0	13.0	37.5	0.8	300	N/A
NPYT474K500VY2N9F	0.47	474	±10% (K)	41.5	26.0	14.5	37.5	0.8	250	N/A
NPYT474K500VY2N10F	0.47	474	±10% (K)	42.0	15.0	24.0	37.5	0.8	300	N/A
NPYT564K500VY2N2F	0.56	564	±10% (K)	32.0	30.0	15.0	27.5	0.8	100	N/A
NPYT564K500VY2N1F	0.56	564	±10% (K)	32.0	28.0	18.0	27.5	0.8	100	N/A
NPYT564K500VY2N3F	0.56	564	±10% (K)	37.0	26.5	16.0	32.5	0.8	50	N/A
NPYT564K500VY2N4F	0.56	564	±10% (K)	37.0	28.5	18.0	32.5	0.8	200	N/A
NPYT564K500VY2N5F	0.56	564	±10% (K)	41.5	26.0	14.5	37.5	0.8	250	N/A
NPYT564K500VY2N6F	0.56	564	±10% (K)	42.0	28.0	14.0	37.5	0.8	250	N/A
NPYT684K500VY2N1F	0.68	684	±10% (K)	31.5	33.0	18.0	27.5	0.8	85	N/A
NPYT684M500VY2N3F	0.68	684	±20% (M)	32.0	28.0	18.0	27.5	0.8	100	N/A
NPYT684K500VY2N4F	0.68	684	±10% (K)	32.0	30.0	21.0	27.5	0.8	80	N/A
NPYT684K500VY2N2F	0.68	684	±10% (K)	32.0	18.5	31.0	27.5	0.8	85	N/A
NPYT684K500VY2N5F	0.68	684	±10% (K)	35.5	31.0	20.0	32.5	0.8	200	N/A
NPYT684M500VY2N6F	0.68	684	±20% (M)	37.0	26.5	16.0	32.5	0.8	50	N/A
NPYT684K500VY2N7F	0.68	684	±10% (K)	37.0	28.5	18.0	32.5	0.8	200	N/A
NPYT684M500VY2N8F	0.68	684	±20% (M)	41.5	26.0	14.5	37.5	0.8	250	N/A
NPYT684M500VY2N9F	0.68	684	±20% (M)	41.5	30.0	17.0	37.5	0.8	200	N/A
NPYT684K500VY2N10F	0.68	684	±10% (K)	42.0	28.0	14.0	37.5	0.8	250	N/A
NPYT824M500VY2N1F	0.82	824	±20% (M)	31.5	33.0	18.0	27.5	0.8	85	N/A
NPYT824K500VY2N3F	0.82	824	±10% (K)	32.0	37.0	22.0	27.5	0.8	60	N/A
NPYT824M500VY2N2F	0.82	824	±20% (M)	32.0	18.5	31.0	27.5	0.8	85	N/A
NPYT824K500VY2N4F	0.82	824	±10% (K)	35.5	31.0	20.0	32.5	0.8	200	N/A
NPYT824K500VY2N5F	0.82	824	±10% (K)	37.0	34.0	22.0	32.5	0.8	180	N/A
NPYT824K500VY2N6F	0.82	824	±10% (K)	41.5	30.0	17.0	37.5	0.8	200	N/A
NPYT824K500VY2N7F	0.82	824	±10% (K)	42.0	19.0	24.0	37.5	0.8	200	N/A
NPYT105K500VY2N1F	1.0	105	±10% (K)	32.0	37.0	22.0	27.5	0.8	60	N/A
NPYT105K500VY2N2F	1.0	105	±10% (K)	37.0	34.0	22.0	32.5	0.8	180	N/A
NPYT105K500VY2N4F	1.0	105	±10% (K)	41.0	37.0	22.0	37.5	0.8	150	N/A
NPYT105K500VY2N5F	1.0	105	±10% (K)	41.5	30.0	17.0	37.5	0.8	200	N/A
NPYT105M500VY2N6F	1.0	105	±20% (M)	41.5	32.0	19.0	37.5	0.8	200	N/A
NPYT105K500VY2N7F	1.0	105	±10% (K)	41.5	34.0	20.5	37.5	0.8	150	N/A
NPYT105K500VY2N8F	1.0	105	±10% (K)	41.5	35.5	22.5	37.5	0.8	150	N/A
NPYT105K500VY2N9F	1.0	105	±10% (K)	51.0	27.5	17.5	47.5	0.8	170	N/A
NPYT105K500VY2N10F	1.0	105	±10% (K)	51.0	30.5	20.0	47.5	0.8	200	N/A
NPYT125K500VY2N1F	1.2	125	±10% (K)	41.5	35.5	22.5	37.5	0.8	150	N/A
NPYT125K500VY2N2F	1.2	125	±10% (K)	51.0	30.5	20.0	47.5	0.8	200	N/A
NPYT125K500VY2N3F	1.2	125	±10% (K)	51.0	34.0	22.0	47.5	0.8	132	N/A
NPYT125K500VY2N4F	1.2	125	±10% (K)	58.0	30.0	20.5	51.5	0.8	188	N/A

\*Also available in ±5% (J) and ±20% (M) tolerance and voltage ratings 250/275/300/310/330/350/400/440/480 (Same Size)

## 500VAC STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (μF)	Capacitance Code	Standard Tolerance*	L	H	T	LS	LD	Packaging Quantity	
				±1.0	±1.0	±1.0	±1.0	±0.05	Bulk	T&B
NPYT155K500VY2N1F	1.5	155	±10% (K)	41.5	41.0	27.5	37.5	0.8	140	N/A
NPYT155K500VY2N2F	1.5	155	±10% (K)	51.0	34.0	22.0	47.5	0.8	132	N/A
NPYT155K500VY2N3F	1.5	155	±10% (K)	51.0	35.0	24.0	47.5	0.8	120	N/A
NPYT155K500VY2N4F	1.5	155	±10% (K)	58.0	30.0	20.5	51.5	0.8	188	N/A
NPYT185K500VY2N1F	1.8	185	±10% (K)	41.5	43.0	28.0	37.5	0.8	130	N/A
NPYT185K500VY2N2F	1.8	185	±10% (K)	41.5	45.0	30.0	37.5	0.8	100	N/A
NPYT185K500VY2N3F	1.8	185	±10% (K)	51.0	35.0	24.0	47.5	0.8	120	N/A
NPYT185K500VY2N4F	1.8	185	±10% (K)	51.0	43.5	29.0	47.5	0.8	100	N/A
NPYT185K500VY2N5F	1.8	185	±10% (K)	58.0	35.0	23.0	51.5	0.8	176	N/A
NPYT205K500VY2N1F	2.0	205	±10% (K)	41.5	45.0	30.0	37.5	0.8	100	N/A
NPYT205K500VY2N2F	2.0	205	±10% (K)	58.0	35.0	23.0	51.5	0.8	176	N/A
NPYT225K500VY2N1F	2.2	225	±10% (K)	58.0	38.0	25.0	51.5	0.8	188	N/A
NPYT255K500VY2N1F	2.5	255	±10% (K)	57.0	45.0	30.0	51.5	0.8	145	N/A
NPYT275K500VY2N1F	2.7	275	±10% (K)	57.0	45.0	30.0	51.5	0.8	145	N/A
NPYT305K500VY2N1F	3.0	305	±10% (K)	57.0	45.0	30.0	51.5	0.8	145	N/A
NPYT335K500VY2N2F	3.3	335	±10% (K)	57.0	45.0	30.0	51.5	0.8	145	N/A
NPYT335K500VY2N1F	3.3	335	±10% (K)	57.0	30.0	44.0	51.5	0.8	90	N/A
NPYT395K500VY2N1F	3.9	395	±10% (K)	57.0	50.0	35.0	51.5	0.8	60	N/A
NPYT475K500VY2N1F	4.7	475	±10% (K)	57.0	50.0	35.0	51.5	0.8	60	N/A
NPYT475K500VY2N3F	4.7	475	±10% (K)	58.0	56.5	43.0	51.5	0.8	42	N/A

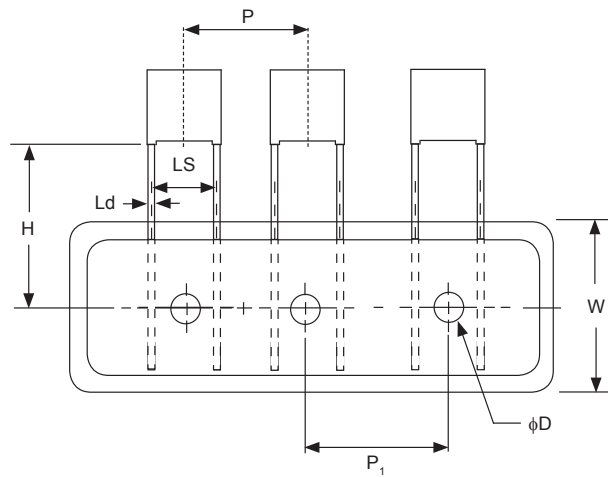
\*Also available in ±5% (J) and ±20% (M) tolerance and voltage ratings 250/275/300/310/330/350/400/440/480 (Same Size)

## ENVIRONMENTAL CHARACTERISTICS

Item	Test Method	Standard
Endurance	+110°C±2°C, 170% of RV for 1,000 hours (Voltage applied through 47Ω ± 5% resistor, every hour voltage is increased to 1,000Vrms for 0.1 seconds).	Physical: No remarkable physical Capacitance: Within ±10% of initial measured value DF: 0.8% max. 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 ± 3°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 ± 3°C for 2 hours ± 1 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
Bending Strength	Apply 0.5Kg of force for 2 cycles. Each cycle includes 90° once, return to original position for 2 ~ 3 seconds and then bend in the opposite direction.	No abnormalities

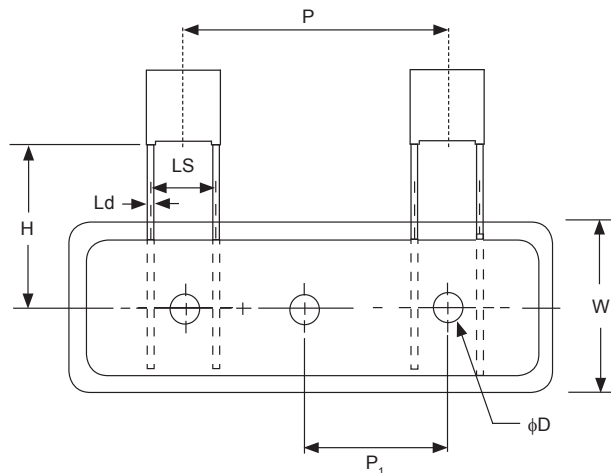
### AMMO PACK (TB) TAPING DIMENSIONS 7.5mm LEAD SPACE

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



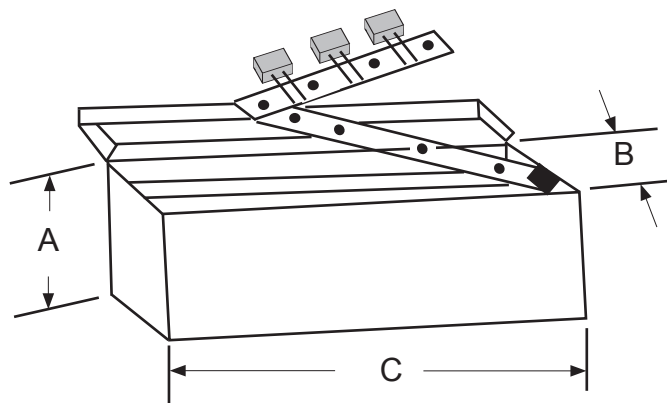
### AMMO PACK (TB) TAPING DIMENSIONS 10 & 15mm LEAD SPACE

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 <sub>1</sub>	12.7 ± 0.3	
W	18.0 ± 1.0	
φD <sub>1</sub>	4.0 ± 0.3	



### AMMO PACK BOX DIMENSIONS

Item	Dimension (mm)
A	270
B	50
C	330



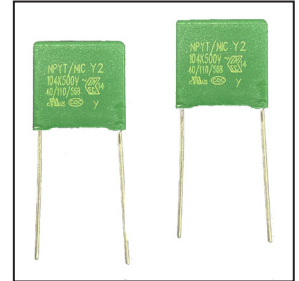
MOLDED BOX CONSTRUCTION, SUPPRESSION CAPACITOR, RADIAL LEAD

### FEATURES

- Self-Healing Construction
- Y1 Class Safety Capacitors
- High VAC Rating: 500VAC
- High Withstanding Voltage 4000VAC
- Safety Agency Listed: UL, cUL, ENEC, CQC
- IEC 60068-1 Climatic category 55/110/56

*Expanded Voltage Range*

**HIGH VOLTAGE  
Y1 250~500VAC  
Safety Capacitors**



### SPECIFICATIONS (CLASS Y2)

Operating Temperature		-40°C ~ +110°C
Rated Voltage		250/275/300VAC/310/330/350/400/440/480/500VAC
Capacitance Range		470pF ~ 0.1μF
Capacitance Tolerance		±5% (J), ±10% (K), ±20% (M)
Insulation Resistance (min.)		15,000Megohm 100V ~ 480V 60 sec. @ 100VDC 500V 60 sec. @ 500VDC
Dissipation Factor		≤ 0.1% max. @ 1KHz/20°C
IEC 60068-1 Climatic category (Damp heat, steady state)		40/110/56 Temp. +40°C ± 2°C with relative humidity (RH): 93% ±2% for 56 days
Dielectric Strength	Between Terminals	4,000VAC for 2 sec.
	Between Terminals & Enclosure	4,000VAC for 60 sec. max.

### SAFETY AGENCY APPROVALS

Agency	Standard	Capacitance Values	Voltages	Certificate Number
UL/cUL	UL60384-14 CSAE60384-14	470pF ~ 0.1μF	250/275/300/310/330/350/400/440/480/500VAC	E209251
ENEC	EN60384-14 : 2005 (ed.4)		250/275/300/310/330/350/400/440/480/500VAC	SE-ENEC-2002177R1
CQC	IEC60384-14 : 2013		250/275/300/310/330/350/400/440/480/500VAC	CQC13001099626

### DV/DT RATINGS

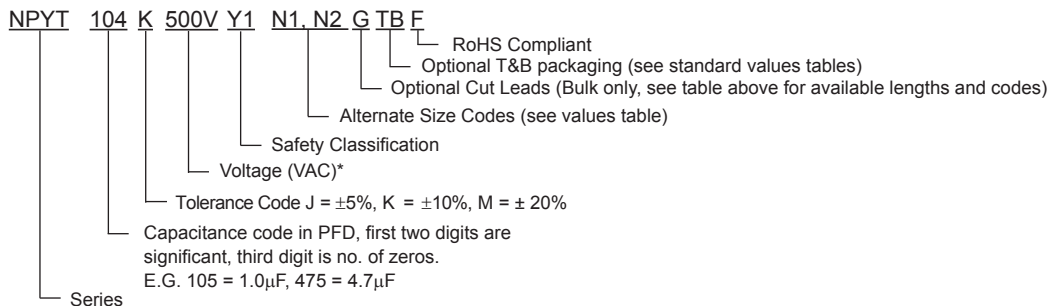
Lead-Space (mm)	15	22.5	27.5
DV/DT (V/μS)	3000	1000	700

### 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 ±0.5mm

### PART NUMBER SYSTEM



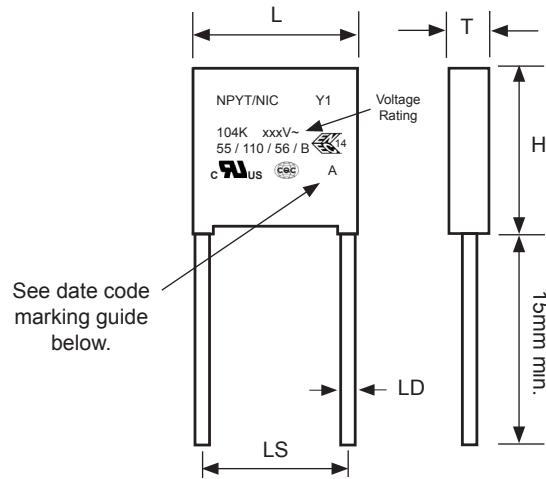
Parts are available marked with voltage ratings 250/275/300/310/330/350/400/440/480 (same size).  
Modify part number as shown below:

NPYT473K250VY1N1F for 250V part in N1 size  
 NPYT473K275VY1N1F for 275V part in N1 size  
 NPYT473K300VY1N1F for 300V part in N1 size, etc.

NPYT474K250VY1N5F for 250V part in N5 size  
 NPYT474K275VY1N5F for 275V part in N5 size  
 NPYT474K300VY1N5F for 300V part in N5 size, etc.



## MARKING



## DATE CODE MARKING

Year	Month	Code	Year	Month	Code	Year	Month	Code	Year	Month	Code
2020	Jan.	n	2021	Jan.	A	2022	Jan.	N	2023	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

## 500VAC STANDARD VALUES AND CASE SIZE (mm)

Part Number	Cap. Value (pF)	Capacitance Code	Standard Tolerance*	L ±1.0	H ±1.0	T ±1.0	LS ±1.0	LD ±0.05	Packaging Quantity	
									Bulk	T&B
NPYT471K500VY1N1F	470	471	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT561K500VY1N1F	560	561	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT681K500VY1N1F	680	681	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT102K500VY1N1F	1000	102	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT122K500VY1N1F	1200	122	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT152K500VY1N1F	1500	152	±10% (K)	18.0	11.0	5.0	15.0	0.6	500	450
NPYT182K500VY1N1F	1800	182	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT202K500VY1N1F	2000	202	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT222K500VY1N1F	2200	222	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT252K500VY1N1F	2500	252	±10% (K)	18.0	12.0	6.0	15.0	0.6	500	400
NPYT272K500VY1N1F	2700	272	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT282K500VY1N1F	2800	282	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT332K500VY1N1F	3300	332	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT392K500VY1N1F	3900	392	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT402K500VY1N1F	4000	402	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT472K500VY1N1F	4700	472	±10% (K)	18.0	13.5	7.5	15.0	0.6	500	300
NPYT502K500VY1N1F	5000	502	±10% (K)	18.0	14.5	8.5	15.0	0.6	500	250
NPYT562K500VY1N1F	5600	562	±10% (K)	18.0	14.5	8.5	15.0	0.6	500	250
NPYT562K500VY1N2F	5600	562	±10% (K)	25.0	14.5	6.0	22.5	0.8	200	N/A
NPYT682K500VY1N1F	6800	682	±10% (K)	18.0	16.0	10.0	15.0	0.6	200	200
NPYT682K500VY1N2F	6800	682	±10% (K)	26.5	16.5	7.0	22.5	0.8	200	N/A
NPYT822K500VY1N1F	8200	822	±10% (K)	18.0	19.0	11.0	15.0	0.6	200	200
NPYT822K500VY1N2F	8200	822	±10% (K)	26.5	17.0	8.5	22.5	0.8	200	N/A
NPYT103K500VY1N1F	10000	103	±10% (K)	18.0	19.0	11.0	15.0	0.6	200	200
NPYT103K500VY1N2F	10000	103	±10% (K)	26.5	17.0	8.5	22.5	0.8	200	N/A
NPYT123K500VY1N1F	12000	123	±10% (K)	26.0	19.0	10.0	22.5	0.8	200	N/A
NPYT153K500VY1N1F	15000	153	±10% (K)	26.0	19.0	10.0	22.5	0.8	200	N/A
NPYT183K500VY1N1F	18000	183	±10% (K)	26.5	20.0	11.0	22.5	0.8	200	N/A
NPYT223K500VY1N1F	22000	223	±10% (K)	26.0	22.0	12.0	22.5	0.8	200	N/A
NPYT223K500VY1N2F	22000	223	±10% (K)	31.5	20.0	11.0	27.5	0.8	100	N/A
NPYT273K500VY1N1F	27000	273	±10% (K)	31.5	22.5	13.0	27.5	0.8	100	N/A
NPYT333K500VY1N1F	33000	333	±10% (K)	31.5	22.5	13.0	27.5	0.8	100	N/A
NPYT473K500VY1N1F	47000	473	±10% (K)	32.0	28.0	14.0	27.5	0.8	100	N/A
NPYT563K500VY1N1F	56000	563	±10% (K)	32.0	28.0	14.0	27.5	0.8	100	N/A
NPYT683K500VY1N1F	68000	683	±10% (K)	31.5	33.0	18.0	27.5	0.8	100	N/A
NPYT823K500VY1N1F	82000	823	±10% (K)	31.0	31.0	22.0	27.5	0.8	100	N/A
NPYT104K500VY1N1F	100000	104	±10% (K)	31.0	31.0	22.0	27.5	0.8	100	N/A
NPYT104K500VY1N2F	100000	104	±10% (K)	31.0	34.5	21.0	27.5	0.8	100	N/A
NPYT104K500VY1N3F	100000	104	±10% (K)	32.0	37.0	22.0	27.5	0.8	100	N/A

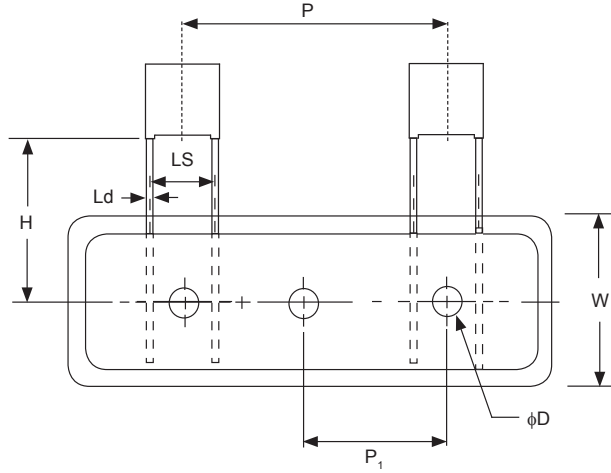
\*Also available in ±5% (J) and ±20% (M) tolerance and voltage ratings 250/275/300/310/330/350/400/440/480 (Same Size)

## ENVIRONMENTAL CHARACTERISTICS

Item	Test Method	Standard
Endurance	+110°C±2°C, 170% of RV for 1,000 hours (Voltage applied through 47Ω ± 5% resistor, every hour voltage is increased to 1,000Vrms for 0.1 seconds).	Physical: No remarkable physical Capacitance: Within ±10% of initial measured value DF: 0.8% max. 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 ± 3°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 ± 3°C for 2 hours ± 1 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
Bending Strength	Apply 0.5Kg of force for 2 cycles. Each cycle includes 90° once, return to original position for 2 ~ 3 seconds and then bend in the opposite direction.	No abnormalities

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 <sub>1</sub>	12.7 ± 0.3	
W	18.0 ± 1.0	
φD <sub>1</sub>	4.0 ± 0.3	

### AMMO PACK (TB) TAPING DIMENSIONS 15mm LEAD SPACE



Item	Dimension (mm)
A	270
B	50
C	330

### AMMO PACK BOX DIMENSIONS

