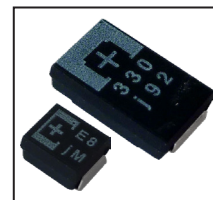


### FEATURES

- Low ESR and Very High Capacitance
- Values from 47 $\mu$ F to 1,500 $\mu$ F
- B (3.5mm x 2.8mm) and D (7.3mm x 4.3mm) Case Size



### CHARACTERISTICS

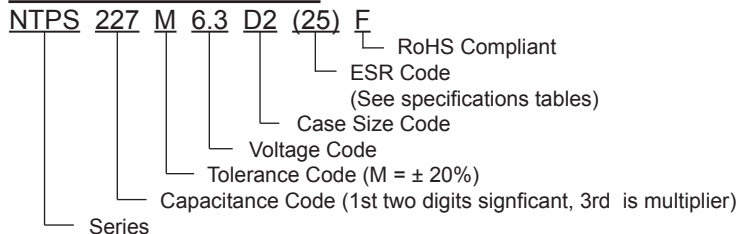
Capacitance Range	47 $\mu$ F to 1,500 $\mu$ F
Capacitance Tolerance	$\pm$ 20% (M)
Rated Voltage Range @ 105°C (Vdc)	2.0Vdc ~ 10Vdc
Operating Temperature Range	-55°C ~ +105°C (Some parts require voltage derating for operation above +85°C. See part number tables for details)
Dissipation Factor	See Specifications Table
Leakage Current @ +25°C (After 5 Minutes at Rated Voltage)	
Impedance Ratio	Z-55°C/Z+20°C within 0.6 ~ 2.0 Z+105°C/Z+20°C within 0.6 ~ 2.0
Resistance to Soldering Heat (+260°C for 5 Seconds)	$\Delta$ C $\pm$ 10% of initial measured value, LC = Less than 300% spec. max. value DF = Less than 200% of specified max. value
Moisture Resistance (500 hours; 90~95% RH @ +60°C)	$\Delta$ C -20% ~ +50% Max, LC = <300% of specified max. value DF = 150% of specified max. value
Load Life at Rated Voltage 2,000 hours @ 105°C (except B) B & +85°C parts 1,000 hours @ +105°C	$\Delta$ C $\pm$ 20% Max, LC = Less than initial specification DF = 150% of specified max. value
Base Failure Rate	B case size: 1%/1000 hours at +105°C and rated voltage Other sizes: 0.5%/1000 hours at +105°C and rated voltage B case size: 1%/1000 hours at +85°C and rated voltage Other sizes: 0.5%/1000 hours at +85°C and rated voltage

\* Recommended voltage derating is 90% of rated voltage for  $\leq$  8V parts and 80% derating for 10V parts.

### STANDARD VALUES AND CASE SIZES

Rated Voltage	2.0	2.5	4.0	6.3	8.0	10
Surge Voltage	2.3	2.9	4.6	7.2	9.2	12
Capacitance ( $\mu$ F)	Code	Case Size	Case Size	Case Size	Case Size	Case Size
47	476	-	-	-	-	B
68	686	-	-	-	-	D2
100	107	-	-	B	B, D2	-
120	127	-	-	-	B	-
150	157	-	-	B, D2	B, D2	-
220	227	-	B, D2	B, D2	B, D2	D
330	337	B	B, D2	D2	D2, D, D9	D9
470	477	B	D2	D	D1, D9	-
680	687	-	D	-	D9	-
1000	108	-	D9	-	-	-
1500	158	-	D9	-	-	-

### PART NUMBER SYSTEM



### PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.nicomp.com/resource/files/aluminum/AlumApplInfoCautions.pdf>  
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@nicomp.com](mailto:tpmg@nicomp.com)



Issued: February 8th, 2023  
 SUB: EOL Notice  
 Product Type: Surface Mount Polymer Tantalum Capacitors  
 NIC Series: NTPS Series  
 Product Specification:  
<http://www.niccomp.com/products/catalog/ntps.pdf>

Notification: End of Life Notification

The following is notice of the end of life for the NTPS series (see table below).

Effective: February 8th, 2023  
 Last Order Date: August 8th, 2023 for establish customers with existing business  
 Last Ship Date: February 8th, 2024 for established customers with existing business

Reason for Discontinuation: Low Demand  
[Link to List of Part Numbers \(Excel\)](#)

EOL Part Number	Capacitance	Voltage	Possible Alternate	Comment
NTPS477M2B(11)F	470	2	N/A	
NTPS227M2.5B(15)F	220	2.5	NTP227M2.5TRB(25)F	Higher ESR
NTPS227M2.5D2(15)F	220	2.5	NTP227M4TRD(12)F	Higher ESR, Shorter Load Life
NTPS227M2.5D2(18)F	220	2.5	NTP227M4TRV(18)F	Higher ESR, Shorter Load Life
NTPS227M2.5B(21)F	220	2.5	NTP227M2.5TRB(25)F	Higher ESR
NTPS227M2.5B(25)F	220	2.5	NTP227M2.5TRB(25)F	Higher ESR, Shorter Load Life
NTPS227M2.5D2(25)F	220	2.5	NTP227M4TRV(25)F	Higher ESR, Shorter Load Life
NTPS227M2.5B(35)F	220	2.5	NTP227M2.5TRB(35)F	
NTPS337M2.5D2(7)F	330	2.5	N/A	
NTPS337M2.5D2(9)F	330	2.5	N/A	
NTPS337M2.5D2(12)F	330	2.5	NTP337M2.5TRV(12)F	Shorter Load Life
NTPS337M2.5D2(15)F	330	2.5	NTP337M2.5TRV(15)F	Shorter Load Life
NTPS337M2.5D2(18)F	330	2.5	NTP337M2.5TRV(15)F	Shorter Load Life
NTPS337M2.5D2(25)F	330	2.5	NTP337M2.5TRV(25)F	Shorter Load Life
NTPS337M2.5B(35)F	330	2.5	NTP337M2.5TRB(35)F	
NTPS477M2.5D2(9)F	470	2.5	NTP477M2.5TRV(7)F	Shorter Load Life
NTPS477M2.5D2(12)F	470	2.5	NTP477M2.5TRV(12)F	Shorter Load Life
NTPS477M2.5D2(15)F	470	2.5	NTP477M2.5TRV(15)F	Shorter Load Life
NTPS477M2.5D2(18)F	470	2.5	NTP477M2.5TRV(15)F	Shorter Load Life
NTPS687M2.5D(12)F	680	2.5	NTP687M2.5TRD(12)F	Shorter Load Life
NTPS687M2.5D(15)F	680	2.5	NTP687M2.5TRD(15)F	Shorter Load Life
NTPS108M2.5D9(15)F	1000	2.5	NTP108M2.5TRD(15)F	Shorter Load Life
NTPS158M2.5D9(12)F	1500	2.5	N/A	
NTPS158M2.5D9(15)F	1500	2.5	N/A	
NTPS107M4B(35)F	100	4	NTP107M4TRB(35)F	
NTPS157M4D2(18)F	150	4	NTP157M6.3TRD(25)F	Higher ESR, Shorter Load Life
NTPS157M4B(35)F	150	4	NTP157M4TRB(35)F	
NTPS227M4D2(15)F	220	4	NTP227M4TRV(15)F	Shorter Load Life
NTPS227M4D2(18)F	220	4	NTP227M4TRV(18)F	Shorter Load Life
NTPS227M4D2(25)F	220	4	NTP227M4TRV(25)F	Shorter Load Life
NTPS227M4B(35)F	220	4	NTP227M4TRB(35)F	
NTPS337M4D2(18)F	330	4	NTP337M4TRD(15)F	Shorter Load Life
NTPS337M4D2(25)F	330	4	NTP337M4TRD(25)F	Shorter Load Life
NTPS477M4D(12)F	470	4	NTP477M4TRD(12)F	Shorter Load Life
NTPS477M4D(15)F	470	4	NTP477M4TRD(15)F	Shorter Load Life
NTPS477M4D(18)F	470	4	NTP477M4TRD(18)F	Shorter Load Life
NTPS477M4D(25)F	470	4	NTP477M4TRD(25)F	Shorter Load Life
NTPS107M6.3D2(18)F	100	6.3	N/A	
NTPS107M6.3B(25)F	100	6.3	NTP107M6.3TRB(25)F	

EOL Part Number	Capacitance	Voltage	Possible Alternate	Comment
NTPS107M6.3D2(25)F	100	6.3	N/A	
NTPS107M6.3B(35)F	100	6.3	NTP107M6.3TRB(35)F	
NTPS127M6.3B(35)F	120	6.3	N/A	
NTPS157M6.3D2(18)F	150	6.3	NTP157M6.3TRD(25)F	Higher ESR, Shorter Load Life
NTPS157M6.3B(25)F	150	6.3	NTP157M6.3TRB(25)F	
NTPS157M6.3D2(25)F	150	6.3	NTP157M6.3TRD(25)F	Shorter Load Life
NTPS157M6.3B(35)F	150	6.3	NTP157M6.3TRB(35)F	
NTPS227M6.3D2(18)F	220	6.3	NTP227M6.3TRV(15)F	Shorter Load Life
NTPS227M6.3D2(25)F	220	6.3	NTP227M6.3TRV(25)F	Shorter Load Life
NTPS227M6.3B(35)F	220	6.3	NTP227M6.3TRB(35)F	
NTPS337M6.3D(9)F	330	6.3	NTP337M6.3TRD(18)F	Higher ESR, Shorter Load Life
NTPS337M6.3D9(10)F	330	6.3	NTP337M6.3TRD(18)F	Higher ESR, Shorter Load Life
NTPS337M6.3D(15)F	330	6.3	NTP337M6.3TRD(18)F	Higher ESR, Shorter Load Life
NTPS337M6.3D(18)F	330	6.3	NTP337M6.3TRD(18)F	Shorter Load Life
NTPS337M6.3D(25)F	330	6.3	NTP337M6.3TRD(25)F	Shorter Load Life
NTPS337M6.3D2(25)F	330	6.3	NTP337M6.3TRV(25)F	Shorter Load Life
NTPS477M6.3D9(18)F	470	6.3	N/A	
NTPS477M6.3D9(25)F	470	6.3	N/A	
NTPS477M6.3D1(35)F	470	6.3	N/A	
NTPS687M6.3D9(18)F	680	6.3	N/A	
NTPS687M6.3D9(25)F	680	6.3	N/A	
NTPS107M8B(35)F	100	8	NTP107M10TRB(45)F	Higher ESR
NTPS476M10B(35)F	4.7	10	NTP476M10TRB(35)F	
NTPS686M10D2(25)F	6.8	10	NTP686M10TRV(60)F	Higher ESR, Shorter Load Life
NTPS227M10D(18)F	220	10	NTP227M10TRD(25)F	Higher ESR, Shorter Load Life
NTPS227M10D(25)F	220	10	NTP227M10TRD(25)F	Shorter Load Life
NTPS337M10D9(25)F	330	10	N/A	

Prepared by: Technical Product Marketing Group / [tpmg@niccomp.com](mailto:tpmg@niccomp.com)

→ Follow NIC PCN alerts to get email notifications of EOL and PCN announcements at [www.niccomp.com/pcn](http://www.niccomp.com/pcn)

Use our Quickbuilder tool to find possible alternatives for the discontinued parts:

[http://www.niccomp.com/QuickBUILDER/qb\\_capacitor.php](http://www.niccomp.com/QuickBUILDER/qb_capacitor.php)

Issued: February 6th, 2023  
SUB: EOL Notice  
Product Type: Surface Mount Polymer Tantalum Capacitors  
NIC Series: NTPS Series (Specific Part Numbers)  
Product Specification:  
<http://www.niccomp.com/products/catalog/ntps.pdf>

Notification: End of Life Notification

The following is notice of the end of life for specific NTPS series part numbers (see table below).

Effective: February 6th, 2023  
Last Order Date: August 6th, 2023 for establish customers with existing business  
Last Ship Date: February 6th, 2024 for established customers with existing business

Reason for Discontinuation: Low Demand  
[Link to List of Part Numbers \(Excel\)](#)

EOL Part Numbers	Capacitance (uF)	Voltage (VDC)	Case Size LxWxH (mm)	Possible Alternative	Comments
NTPS337M2B(13)F	330	2.0	3.5x2.8x1.9	NTP337M2.5TRB(9)F	Higher Voltage
NTPS337M2B(15)F	330	2.0	3.5x2.8x1.9	NTP337M2.5TRB(15)F	Higher Voltage

Prepared by: Technical Product Marketing Group / [tpmg@niccomp.com](mailto:tpmg@niccomp.com)  
→ Follow NIC PCN alerts to get email notifications of EOL and PCN announcements at [www.niccomp.com/pcn](http://www.niccomp.com/pcn)

---

Use our Quickbuilder tool to find possible alternatives for the discontinued parts:  
[http://www.niccomp.com/QuickBUILDER/qb\\_capacitor.php](http://www.niccomp.com/QuickBUILDER/qb_capacitor.php)

## -55°C ~ +85°C (+105°C with derating) STANDARD VALUES AND SPECIFICATIONS

NIC Part Number	Cap. Value (μF)	Rated Voltage (Vdc) ≤+85°C*	Rated Voltage Derated for Operation >+85°C* (Vdc)	LC (μA) after 5 min.	Dissipation Factor @ +20°C & 120Hz	ESR (mΩ) @+20°C &100KHz	Ripple Current Rating (mA) 100KHz ~ 500KHz		
							≤+45°C	>+45°C ~ ≤+85°C	>+85°C ~ ≤+105°C (with >+85°C voltage derating)
NTPS337M2B(13)F	330	2.0	1.8	132	0.08	13/300KHz	2000	1400	500
NTPS477M2B(11)F	470	2.0	1.8	188	0.10	11/300KHz	2300	1610	575
NTPS227M2.5B(25)F	220	2.5	2.0	55	0.08	25	1600	1120	400
NTPS337M2.5B(35)F	330	2.5	2.0	82.5	0.08	35	1400	980	350
NTPS157M4B(35)F	150	4.0	3.2	60	0.08	35	1400	980	350
NTPS227M4B(35)F	220	4.0	3.2	88	0.08	35	1400	980	350
NTPS107M6.3B(35)F	100	6.3	5.0	63	0.08	35	1400	980	350
NTPS127M6.3B(35)F	120	6.3	5.0	75.6	0.08	35	1400	980	350
NTPS157M6.3B(25)F	150	6.3	5.0	94.5	0.08	25	1600	1120	400
NTPS157M6.3B(35)F	150	6.3	5.0	94.5	0.08	35	1400	980	350
NTPS227M6.3B(35)F	220	6.3	5.0	138.6	0.10	35	1400	980	350
NTPS337M6.3D2(25)F	330	6.3	5.0	207.9	0.10	25	2400	1680	600
NTPS337M6.3D(9)F	330	6.3	5.0	207.9	0.10	9/500KHz	3900	2730	975
NTPS337M6.3D9(10)F	330	6.3	5.0	207.9	0.10	10	4400	2200	1100
NTPS477M6.3D1(35)F	470	6.3	5.0	296.1	0.10	35	1700	1190	425
NTPS107M8B(35)F	100	8.0	6.3	80	0.08	35	1400	980	350
NTPS476M10B(35)F	47	10	8.0	47	0.08	35	1400	980	350

\* Recommended voltage derating is 90% of rated voltage for ≤ 8V parts and 80% derating for 10V parts.

## -55°C ~ +105°C STANDARD VALUES AND SPECIFICATIONS

NIC Part Number	Cap. Value (μF)	Rated Voltage (Vdc) +105°C*	LC (μA) after 5 min.	DF @ +20°C & 120Hz	ESR (mΩ) @+20°C &100KHz	Ripple Current Rating (mA) 100KHz ~ 500KHz		
						<+45°C	>+45°C ~ ≤+85°C	>+85°C ~ ≤+105°C
NTPS337M2B(15)F	330	2.0	132	0.08	15	2000	1400	500
NTPS227M2.5B(21)F	220	2.5	55	0.08	21	1700	1190	425
NTPS227M2.5B(35)F	220	2.5	55	0.08	35	1400	980	350
NTPS227M2.5B(15)F	220	2.5	110	0.08	15/300kHz	1800	1260	450
NTPS227M2.5D2(25)F	220	2.5	55	0.10	25	2400	1680	600
NTPS227M2.5D2(15)F	220	2.5	55	0.10	15	3100	2170	775
NTPS227M2.5D2(18)F	220	2.5	55	0.10	18	2800	1960	700
NTPS337M2.5D2(25)F	330	2.5	82.5	0.10	25	2400	1680	600
NTPS337M2.5D2(9)F	330	2.5	82.5	0.10	9	3900	2730	975
NTPS337M2.5D2(7)F	330	2.5	82.5	0.10	7	4400	3080	1100
NTPS337M2.5D2(18)F	330	2.5	82.5	0.10	18	2800	1960	700
NTPS337M2.5D2(12)F	330	2.5	82.5	0.10	12	3500	2450	875
NTPS337M2.5D2(15)F	330	2.5	82.5	0.10	15	3100	2170	775
NTPS477M2.5D2(18)F	470	2.5	117.5	0.10	18	2800	1960	700
NTPS477M2.5D2(9)F	470	2.5	117.5	0.10	9	3900	2730	975
NTPS477M2.5D2(15)F	470	2.5	117.5	0.10	15	3100	2170	775
NTPS477M2.5D2(12)F	470	2.5	117.5	0.10	12	3500	2450	875
NTPS687M2.5D(15)F	680	2.5	170	0.10	15	3100	2170	775
NTPS687M2.5D(12)F	680	2.5	170	0.10	12	3500	2450	875
NTPS108M2.5D9(15)F	1000	2.5	250	0.15	15	3900	1950	975
NTPS158M2.5D9(15)F	1500	2.5	375	0.15	15	3900	1950	975
NTPS158M2.5D9(12)F	1500	2.5	375	0.15	12	4400	2200	1100
NTPS107M4B(35)F	100	4.0	40	0.08	35	1400	980	350
NTPS157M4D2(18)F	150	4.0	60	0.10	18	2800	1960	700

\* Recommended voltage derating is 90% of rated voltage for ≤ 8V parts and 80% derating for 10V parts.

CONTINUE ON NEXT PAGE

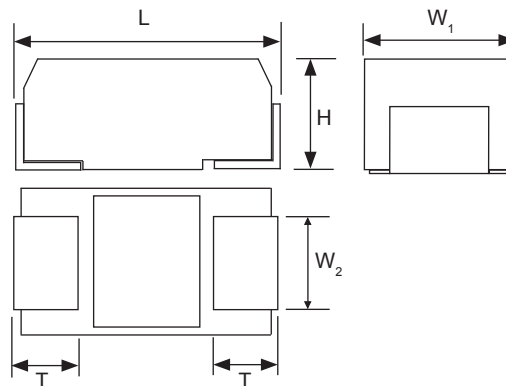
### -55°C ~ +105°C STANDARD VALUES AND SPECIFICATIONS

NIC Part Number	Cap. Value (μF)	Rated Voltage (Vdc) +105°C*	LC (μA) after 5 min.	DF @ +20°C & 120Hz	ESR (mΩ) @+20°C & 100KHz	Ripple Current Rating (mA) 100KHz ~ 500KHz		
						<+45°C	>+45°C ~ ≤+85°C	>+85°C ~ ≤+105°C
NTPS227M4D2(25)F	220	4.0	88	0.10	25	2400	1680	600
NTPS227M4D2(18)F	220	4.0	88	0.10	18	2800	1960	700
NTPS227M4D2(15)F	220	4.0	88	0.10	15	3100	2170	775
NTPS337M4D2(25)F	330	4.0	132	0.10	25	2400	1680	600
NTPS337M4D2(18)F	330	4.0	132	0.10	18	2800	1960	700
NTPS477M4D(18)F	470	4.0	188	0.10	18	2800	1960	700
NTPS477M4D(12)F	470	4.0	188	0.10	12	3500	2450	875
NTPS477M4D(15)F	470	4.0	188	0.10	15	3100	2170	775
NTPS477M4D(25)F	470	4.0	188	0.10	25	2400	1680	600
NTPS107M6.3B(25)F	100	6.3	63	0.08	25	1600	1120	400
NTPS107M6.3D2(25)F	100	6.3	63	0.10	25	2400	1680	600
NTPS107M6.3D2(18)F	100	6.3	63	0.10	18	2800	1960	700
NTPS157M6.3D2(25)F	150	6.3	94.5	0.10	25	2400	1680	600
NTPS157M6.3D2(18)F	150	6.3	94.5	0.10	18	2800	1960	700
NTPS227M6.3D2(25)F	220	6.3	138.6	0.10	25	2400	1680	600
NTPS227M6.3D2(18)F	220	6.3	138.6	0.10	18	2800	1960	700
NTPS337M6.3D(25)F	330	6.3	207.9	0.10	25	2400	1680	600
NTPS337M6.3D(18)F	330	6.3	207.9	0.10	18	2800	1960	700
NTPS337M6.3D(15)F	330	6.3	207.9	0.10	15	3100	2170	775
NTPS477M6.3D9(25)F	470	6.3	296.1	0.15	25	3000	1500	750
NTPS477M6.3D9(18)F	470	6.3	296.1	0.15	18	3500	1750	875
NTPS687M6.3D9(25)F	680	6.3	428.4	0.15	25	3000	1500	750
NTPS687M6.3D9(18)F	680	6.3	428.4	0.15	18	3500	1750	875
NTPS686M10D2(25)F	68	10	68	0.10	25	2400	1680	600
NTPS227M10D(25)F	220	10	220	0.10	25	2400	1680	600
NTPS227M10D(18)F	220	10	220	0.10	18	2800	1960	700
NTPS337M10D9(25)F	330	10	330	0.10	25	3000	1500	750

\* Recommended voltage derating is 90% of rated voltage for ≤ 8V parts and 80% derating for 10V parts.

### CASE DIMENSIONS (mm)

Case Size	L	H	W <sub>1</sub>	W <sub>2</sub>	T
B	3.5 ± 0.2	1.9 ± 0.1	2.8 ± 0.2	2.2 ± 0.1	0.8 ± 0.2
D1	7.3 ± 0.3	1.4 ± 0.1	4.3 ± 0.2	2.4 ± 0.1	1.1 ± 0.2
D2	7.3 ± 0.3	1.9 +0.1/-0.2	4.3 ± 0.2	2.4 ± 0.1	1.3 ± 0.2
D	7.3 ± 0.3	2.8 ± 0.2	4.3 ± 0.2	2.4 ± 0.1	1.3 ± 0.2
D9	7.3 ± 0.3	3.8 ± 0.2	4.3 ± 0.2	2.4 ± 0.1	1.3 ± 0.2

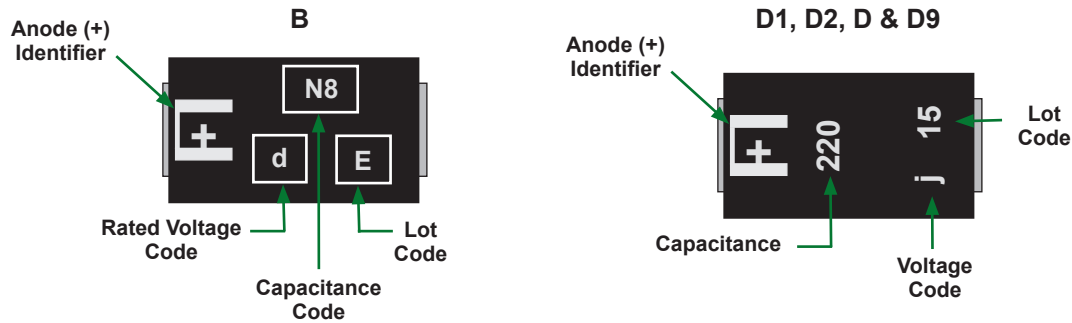


### RATED VOLTAGE CODES

d	e	g	j	k	A
2.0V	2.5V	4.0V	6.3V	8.0V	10V

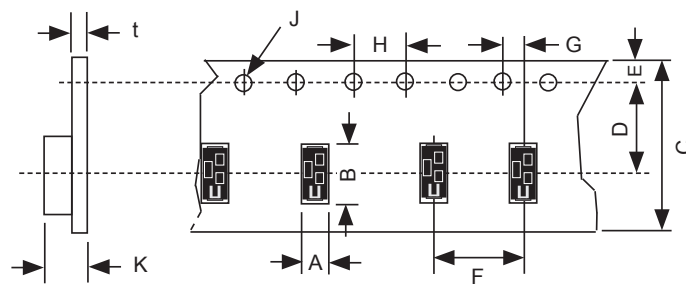
### B CASE SIZE CAPACITANCE CODES

S7	A8	C8	E8	J8	N8	S8
47	100	120	150	220	330	470



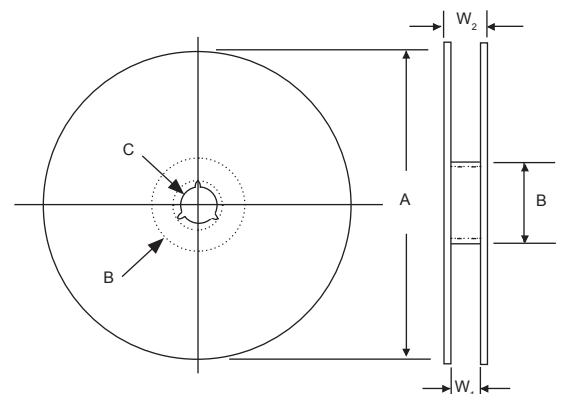
### CARRIER DIMENSIONS AND REEL QUANTITIES

Case Size	A ±0.1	B ±0.1	C ±0.3	D ±0.1	E ±0.1	F ±0.1	G ±0.1	H ±0.1	J +0/-0.1	K ±0.2	t max.	Reel Qty	
												180mm Reel	330mm Reel
B	3.3	3.8	8.0	3.5	1.75	4.0	2.0	4.0	φ1.5	2.1	0.35	2,000	n/a
D1	4.7	7.8	12.0	5.5	1.75	8.0	2.0	4.0	φ1.5	1.7	0.40	n/a	4,000
D2	4.5	7.5	12.0	5.5	1.75	8.0	2.0	4.0	φ1.5	2.4	0.40	n/a	3,000
D	4.5	7.7	12.0	5.5	1.75	8.0	2.0	4.0	φ1.5	3.2	0.40	n/a	2,500
D9	4.5	7.7	12.0	5.5	1.75	8.0	2.0	4.0	φ1.5	4.2	0.40	n/a	2,000

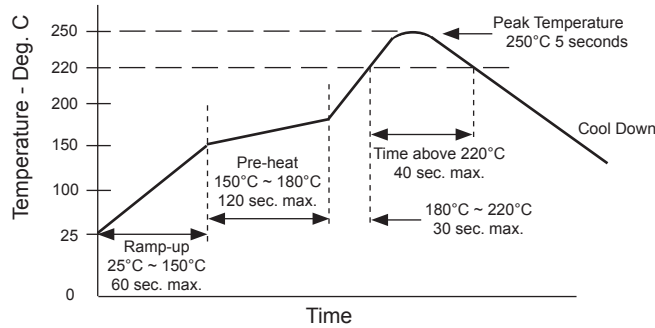


### REEL SPECIFICATIONS (mm)

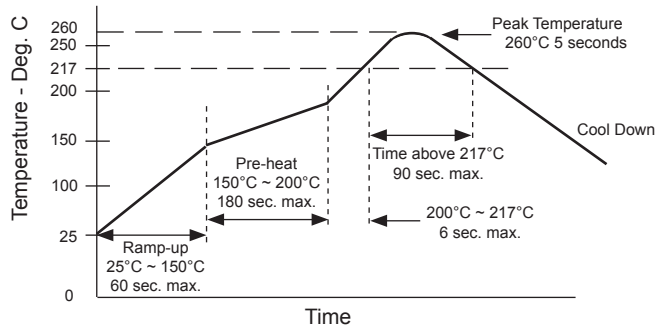
Tape Width	A	B ±2.0	C ±0.2	W <sub>1</sub> ±0.5	W <sub>2</sub> ±1.0
8mm	φ180 +0/-3.0	φ60	φ13	9.0	11.4
12mm	φ330 ±2.0	φ80	φ13	13.5	17.5



## MAXIMUM OF TWO REFLOW PASSES 250°C REFLOW TEMPERATURES/DURATIONS

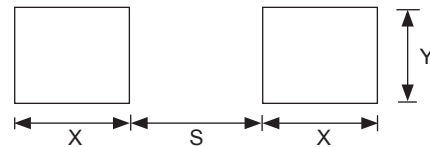


## 260°C REFLOW TEMPERATURES/DURATIONS



## RECOMMENDED LAND PATTERN (mm)

Case Size	S max.	X min.	Y min.
B	1.4	1.6	2.7
D1, D2, D, D9	3.7	2.4	2.9



1. NTPS parts are moisture sensitive and are shipped in moisture control bags. After opening the bag capacitors should be stored at  $\leq 30^{\circ}\text{C}$ , relative humidity of  $\leq 60\%$  maximum and soldered within the timeframe shown in the tables below.

### 250°C Peak Reflow Temperature

Case Size	Time	Conditions	MSL
B	168 hours	$\leq 30^{\circ}\text{C}/60\% \text{ RH}$	3
D1, D2, D, D9	4 weeks	$\leq 30^{\circ}\text{C}/60\% \text{ RH}$	2a

### 260°C Peak Reflow Temperature

Case Size	Time	Conditions	MSL
All Sizes	168 hours	$\leq 30^{\circ}\text{C}/60\% \text{ RH}$	3

2. The parts should be soldered using the minimum amount of heat required.