

FEATURES

- STACKED METALLIZED POLYETHYLENE NAPHTHALATE (PEN) FILM
- STANDARD EIA 1206, 1210, 1913, 2416, 2820, 3022 AND 3925 SIZES
- WIDE TEMPERATURE RANGE UP TO +125°C*
- HIGH HEAT AND MOISTURE RESISTANT
- VERY STABLE TEMPERATURE, FREQUENCY AND VOLTAGE BIAS CHARACTERISTICS
- REFLOW SOLDERING ONLY
- TAPE AND REEL PACKAGING

**NSWC IS
RECOMMENDED
FOR NEW DESIGNS**



**RoHS
Compliant**

includes all homogeneous materials

*See Part Number System for Details

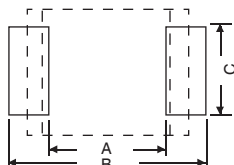
SPECIFICATIONS	Case Sizes						
	1206	1210	1913	2416	2820	3022	3925
Capacitance Range	0.001 ~ 0.0047μF	0.0056 ~ 0.01μF	0.012 ~ 0.082μF	0.1 ~ 0.15μF	0.18 ~ 0.33μF	0.39 ~ 0.47μF	0.56 ~ 1.0μF
Voltage Ratings	100Vdc						
Capacitance Tolerance	0.001 ~ 0.01μF 5% (J) only, 0.012 ~ 0.15μF 5% (J) or 10% (K), 0.18 ~ 1.0μF 10% (K) only						
Temperature Range	-55°C ~ +105°C (0.001μF ~ 0.01μF) -55°C ~ +125°C (0.012μF ~ 1.0μF with derating above +85°C)						
Dissipation factor (20°C)	1.0% max. @ 1KHz						
Insulation resistance (20°C)	3 Gigohms or 1000Ω/F whichever is lower						
Dielectric Withstanding Voltage	150% of Rated Voltage 60 Seconds						

ENVIRONMENTAL CHARACTERISTICS

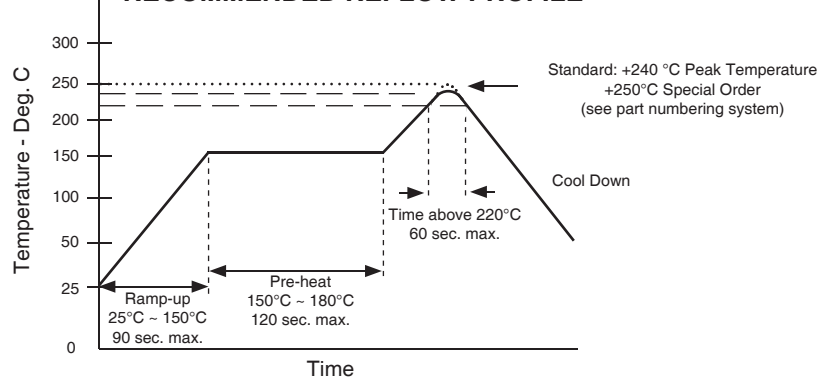
Life Test At +105°C 1,000 Hours at 125% of Rated Voltage (125°C for 0.012μF ~ 1.0μF)	Capacitance Change	Within +1%/-6% of Initial Value	
	Dissipation Factor	1.1% Maximum	
	Insulation Resistance	1 Gigohm Minimum or 300Ω/F whichever is lower	
Resistance to Soldering Heat: +240°C Peak	Capacitance Change	Within ±5% for 0.012 ~ 1.0μF or ±3% for 0.001 ~ 0.01μF of initial value	
	Dissipation Factor	1.1% Max. for 0.012 ~ 1.0μF or 0.66% Max. for 0.001 ~ 0.01μF	
	Insulation Resistance	1 Gigohm Minimum or 300Ω/F whichever is lower	
Humidity Load Life (90% ~ 95% RH) (1) 1,000 Hours, +40°C 500 Hours for 0.012μF ~ 1.0μF (2) 500 Hours, +60°C for 0.001 ~ 0.01μF	Capacitance Change	(1) +8%/-5%	(2) ±10% of Initial Value
	Dissipation Factor	(1) 1.5% Max.	(2) 2.0% Max.
	Insulation Resistance	(1) 100 Megohm Min. or 30Ω/F (2) 10 Megohm Min. or 3Ω/F whichever is lower	
Solderability with 25% Wt Rosin-Methanol Flux	90% Minimum Coverage After 2.5 Second Dip Into 245°C Solder Pot		

RECOMMENDED LAND PATTERN (mm)

EIA Size	A	B	C
1206	1.8	3.6	1.4
1210	1.8	3.6	2.3
1913	2.6	6.6	3.0
2416	3.8	7.8	3.8
2820	4.5	9.0	4.6
3022	5.1	9.7	5.0
3925	7.2	11.9	5.7



RECOMMENDED REFLOW PROFILE



PART NUMBER SYSTEM

NSWC 823 J 100 TR D4 N E

RoHS Compliant
Optional High Temp. Reflow (+250°C)*
Size Code
Tape & Reel
Voltage
Tolerance Code: J = ±5%
Capacitance in pF, 1st two digits are
significant, 3rd digit is no. of zeros
Series

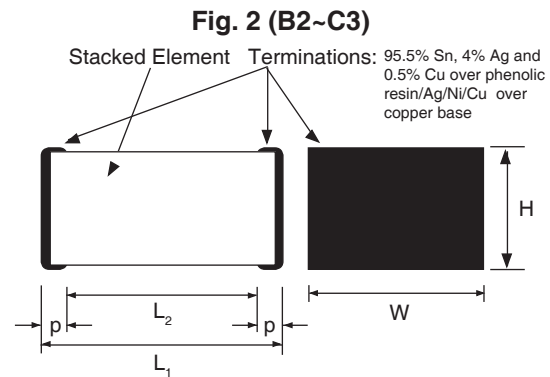
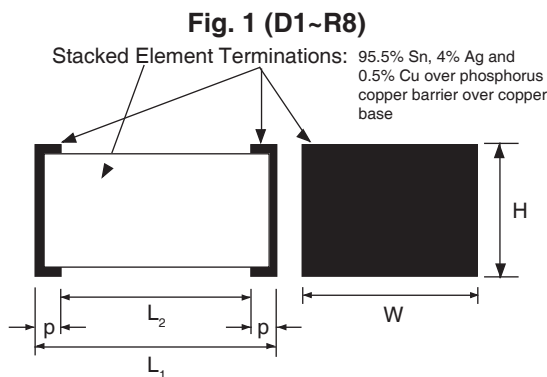
*Special packaging and handling required.



100V STANDARD PRODUCTS AND CASE SIZES

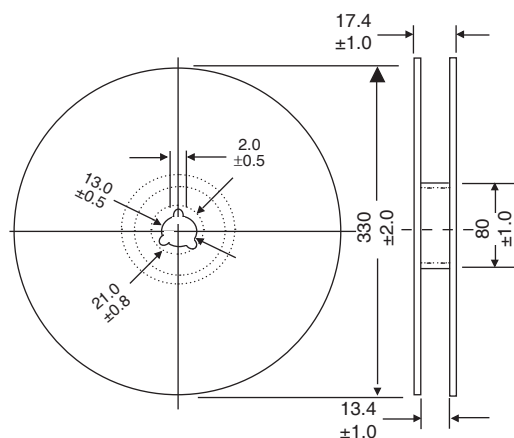
Part Number	Cap. Value	Cap. Code	Size Code	Length L ±0.2	Width W	Height H ±0.2	p	EIA		
NSWC102J100TRB2F	0.001	102	B2	3.2 ± 0.2	1.6 ± 0.2	1.1 ± 0.3	0.65 ± 0.3 (Fig. 1)	1206		
NSWC122J100TRB2F	0.0012	122	B2							
NSWC152J100TRB2F	0.0015	152	B2							
NSWC182J100TRB2F	0.0018	182	B2							
NSWC222J100TRB2F	0.0022	222	B2			1.5 ± 0.3				
NSWC272J100TRB2F	0.0027	272	B2							
NSWC332J100TRB3F	0.0033	332	B3							
NSWC392J100TRB3F	0.0039	392	B3							
NSWC472J100TRB3F	0.0047	472	B3	3.2 ± 0.2	2.5 ± 0.2	1.5	1210			
NSWC562J100TRC2F	0.0056	562	C2							
NSWC682J100TRC2F	0.0068	682	C2			2.1				
NSWC822J100TRC3F	0.0082	822	C3							
NSWC103J100TRC3F	0.010	103	C3	4.8 ± 0.2	3.3 ± 0.3	1.4	0.35 ± 0.2 (Fig. 2)	1913		
NSWC123*100TRD1F	0.012	123	D1							
NSWC153*100TRD1F	0.015	153	D1							
NSWC183*100TRD1F	0.018	183	D1							
NSWC223*100TRD1F	0.022	223	D1							
NSWC273*100TRD1F	0.027	273	D1							
NSWC333*100TRD1F	0.033	333	D1							
NSWC393*100TRD1F	0.039	393	D1							
NSWC473*100TRD2F	0.047	473	D2							
NSWC563*100TRD2F	0.056	563	D2							
NSWC683*100TRD3F	0.068	683	D3							
NSWC823*100TRD4F	0.082	823	D4							
NSWC104*100TRE1F	0.1	104	E1			6.0 ± 0.2			4.1 ± 0.3	1.8
NSWC124*100TRE3F	0.12	124	E3							2.4
NSWC154*100TRE4F	0.15	154	E4							2.8
NSWC184K100TRG1F	0.18	184	G1							2.0
NSWC224K100TRG2F	0.22	224	G2	7.1 ± 0.2	5.0 ± 0.4	2.4	2820			
NSWC274K100TRG3F	0.27	274	G3			2.9				
NSWC334K100TRG5F	0.33	334	G5			3.5				
NSWC394K100TRQ1F	0.39	394	Q1			3.4				
NSWC474K100TRQ2F	0.47	474	Q2	7.7 ± 0.2	5.5 ± 0.4	4.0	3022			
NSWC564K100TRR1F	0.56	564	R1			3.0				
NSWC684K100TRR3F	0.68	684	R3	9.8 ± 0.2	6.3 ± 0.4	3.6	3925			
NSWC824K100TRR6F	0.82	824	R6			4.3				
NSWC105K100TRR8F	1.0	105	R8			5.1				

*These values available in J ($\pm 5\%$) or K ($\pm 10\%$) tolerance.



TAPE DIMENSIONS (mm)

Case Code	A±0.1	B±0.1	C±0.2	t	W±0.3	F	P±0.1	D+0.2/-0	Qty/Reel
B2	1.9	3.5	1.5	0.25	8.0	3.5	4.0	1.0	3,000
B3			1.9						2,000
C2	2.8		1.9						2,000
C3			2.5						2,000
D1	3.8	5.1	2.0	0.3 ±0.05	12.0	5.5 ±0.05	8.0	3,000	
D2			2.6					3,000	
D3, D4			3.4					2,000	
E1, E2	4.6	6.3	2.7	±0.05	12.0	±0.05	8.0	-	3,000
E3, E4			3.5					2,000	
G1 ~ G5	5.5	7.4	4.7	±0.013	16.0	7.5 ±0.1	12.0	1.5	1,500
Q1, Q2	6.91	8.43	5.685						1,000
R1 ~ R8	8.94	10.54	5.795						1,000



EMBOSSED PLASTIC CARRIER

