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NIC COMPONENTS CORP.

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END-OF-LIFE / PRODUCT DISCONTINUATION NOTICE

PRODUCTS: STACKED FILM SMT CHIP CAPACITOR

NIC PRODUCT SERIES: NSFC

PLEASE BE ADVISED THAT THE FOLLOWING IS NOTICE THAT NIC WILL DISCONTINUE PRODUCTION OF **NSFC SERIES** - STACKED FILM SMT CHIP CAPACITORS

DISCONTINUATION DATE: ~ DEC. 31ST, 2007 **LAST ORDER DATE**: SEPT. 30, 2007 **LAST DELIVERY DATE**: DEC. 31ST, 2007

PART NUMBERS EFFECTED: ALL PART NUMBERS IN NSFC SERIES

REASON FOR DISCONTINUATION: DECREASING REQUIREMENTS AND LOWER REFLOW SOLDER HEAT RATING THAN REPLACEMENT (NSHC SERIES)

THE BELOW TABLE SHOWS RECOMMENDED REPLACEMENTS - ALTERNATES

REPLACEMENTS / ALTERNATES:

DISCONTINUED NIC P/N:	Case Size (EIA)	Capacitance (uF)	Tol.	WVDC	SUGGESTED REPLACEMENT PN	Case Size (EIA)	Capacitance (uF)	Tolerance	WVDC
NSFC123J16TRB2F ~ NSFC104J16TRC3F	1206 1210	0.012~0.10	±5%	16VDC	NSHC123J16TRB2F ~NSHC104J16TRC3F	1206 1210	0.012~0.10	±5%	16VDC
NSFC124J16TRD1F ~ NSFC474J16TRE4F	1913 2416	0.12~0.47	±5%	16VDC	NSWC124J16TRD1F ~ NSWC474J16TRE4F	1913 2416	0.12~0.47	±5%	16VDC
NSFC332J50TRB1F ~ NSFC473J50TRC3F	1206 1210	0.0033~0.047	±5%	50VDC	NSHC332J50TRB1F ~ NSHC473J50TRD1F	1206 1210	0.0033~0.047	±5%	50VDC
NSFC563J50TRD2F ~ NSFC224J50TRE4F	1913 2416	0.056~0.22	±5%	50VDC	NSWC563J50TRD2F ~ NSWC224J50TRE4F	1913 2416	0.056~0.22	±5%	50VDC
NSFC102J100TRB2F ~ NSFC103J100TRC3F	1206 1210	0.001~0.01	±5%	100VDC	NSWC102J100TRB2F ~ NSWC103J100TRC3F	1206 1210	0.001~0.01	±5%	100VDC
NSFC123J100TRD1F ~ NSFC473J100TRD2F	1913	0.012~0.047	±5%	100VDC	NSWC123J100TRD1F ~ NSWC473J100TRD2F	1913	0.012~0.047	±5%	100VDC

PREPARED BY:
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Stacked Film Capacitor Chips

NSFC Series

FEATURES

- STACKED METALLIZED POLYESTER FILM CONSTRUCTION
- STANDARD EIA 1206, 1210, 1913 AND 2416 SIZES
- EXCELLENT MOISTURE RESISTANCE
- STABLE TEMPERATURE, FREQUENCY AND BIAS CHARACTERISTICS
- REFLOW SOLDERING APPLICABLE
- 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
Capacitance Range	1000pF ~ 0.056µF	1000pF ~ 0.056µF	1000pF ~ 0.056µF	1000pF ~ 0.056µF
Voltage Ratings*	16Vdc (12Vrms), 50Vdc (40Vrms), 100Vdc (75Vrms)			
Capacitance Tolerance	±5% (J)			
Temperature Range	-55°C ~ +105°C			
Dissipation Factor (+20°C)	1.0% max. @ 1KHz			
Insulation Resistance (+20°C)	3 Gigohms Minimum			
Dielectric Withstanding Voltage	175% of Rated Voltage (5 Seconds) 150% of Rated Voltage (60 Seconds)			
Temperature Characteristic	±4% ΔC Maximum Over Temperature Range			
Dielectric Absorption	0.20 ~ 0.30% Typical			

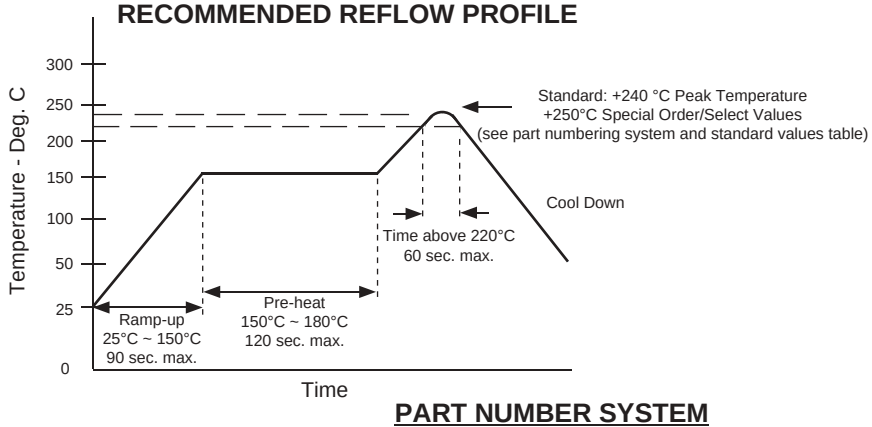
* -AC Voltage Ratings (Vrms) From 60 hz to 10Khz. Contact NIC For Derating At Higher Frequencies.

ENVIRONMENTAL CHARACTERISTICS

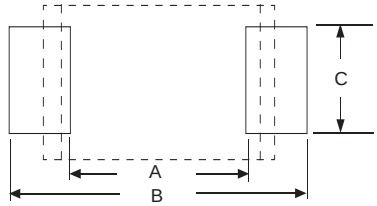
Life Test At +105°C 1,000 Hours at 125% of Rated Voltage	Capacitance Change	Within +1%/-6% of Initial Value
	Dissipation Factor	1.1% Maximum
	Insulation Resistance	1 Gigohm Minimum
Resistance to Soldering Heat: +260°C Peak for 5 Seconds After 90 Seconds at +155°C	Capacitance Change	Within ±5% of Initial Value
	Dissipation Factor	1.1% Maximum
	Insulation Resistance	1 Gigohm Minimum
Humidity Load Life*: (1) 1,000 Hours, +40°C (2) 500 Hours, +60°C	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. (2) 10 Megohm Min.
Solderability with 10% Wt Rosin-Methanol Flux	90% Minimum Coverage After 5 Second Dip Into 235°C Solder Pot	

* At 90 ~ 95% Relative Humidity and Rated Voltage

RECOMMENDED REFLOW PROFILE



RECOMMENDED LAND PATTERN



EIA Size	A	B	C
1206	2.2	3.8	1.4
1210	2.2	3.8	2.3
1913	2.6	6.6	3.0
2416	3.8	7.8	3.8

PART NUMBER SYSTEM

NSFC 103 J 50 TR B2 N F

- F — RoHS Compliant
- N — Optional High Temperature Reflow (+250°C)*
- B2 — Size Code
- TR — Tape & Reel
- 50 — Voltage
- J — Tolerance Code: J=±5%
- 103 — Capacitance in pF, 1st two digits are significant, 3rd digit is no. of zeros
- NSFC — Series

*Special packaging and handling required. Available on select values. (See standard values tables)

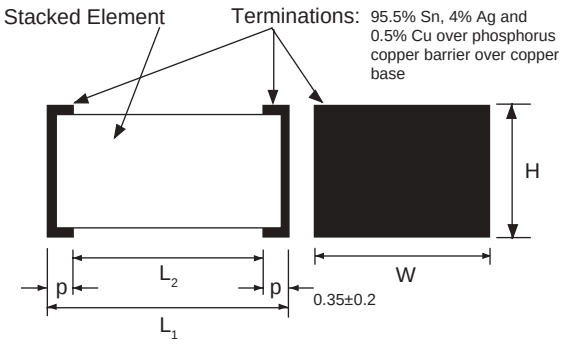
STANDARD VALUES SIZE CODE

Cap. µF	Code	Voltage (Vdc)		
		16	50	100
0.001	102	-	-	B2
0.0012	122	-	-	B2
0.0015	152	-	-	B2
0.0018	182	-	-	B2
0.0022	222	-	-	B2
0.0027	272	-	-	B2
0.0033	332	-	B1	B3
0.0039	392	-	B1	B3
0.0047	472	-	B1	B3
0.0056	562	-	B1	C2
0.0068	682	-	B1	C2
0.0082	822	-	B2	C3
0.01	103	-	B2	C3
0.012	123	B2	C1	D1*
0.015	153	B2	C1	D1*
0.018	183	B2	C2	D1*
0.022	223	B2	C2	D1*
0.027	273	B2	C2	D1*
0.033	333	B3	C3	D1*
0.039	393	B3	C3	D1*
0.047	473	B3	C3	D2*
0.056	563	C2	D2*	-
0.068	683	C2	D2*	-
0.082	823	C3	D3*	-
0.1	104	C3	D4*	-
0.12	124	D1*	E1*	-
0.15	154	D2*	E2*	-
0.18	184	D2*	E3*	-
0.22	224	D3*	E4*	-
0.27	274	E1*	-	-
0.33	334	E2*	-	-
0.39	394	E3*	-	-
0.47	474	E4*	-	-

*Available in +250°C reflow version.
See part number system for details

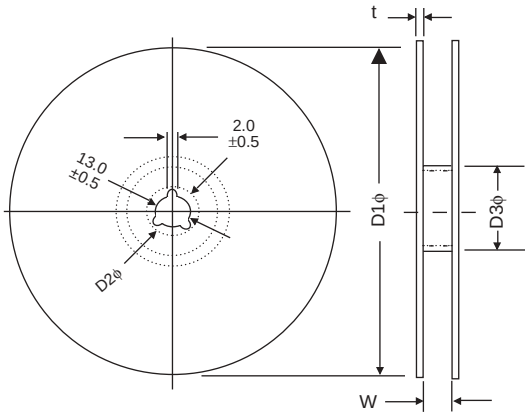
DIMENSIONS AND CASE CODES (mm)

Case Code	Length L ± 0.2	Width W	Height H ± 0.2	EIA Size
B1	3.2	1.6 ± 0.2	0.8	1206
B2	3.2	1.6 ± 0.2	1.0	1206
B3	3.2	1.6 ± 0.2	1.4	1206
C1	3.2	2.5 ± 0.2	1.0	1210
C2	3.2	2.5 ± 0.2	1.4	1210
C3	3.2	2.5 ± 0.2	2.0	1210
D1	4.8	3.3 ± 0.3	1.4	1913
D2	4.8	3.3 ± 0.3	2.0	1913
D3	4.8	3.3 ± 0.3	2.4	1913
D4	4.8	3.3 ± 0.3	2.8	1913
E1	6.0	4.1 ± 0.3	1.8	2416
E2	6.0	4.1 ± 0.3	2.0	2416
E3	6.0	4.1 ± 0.3	2.4	2416
E4	6.0	4.1 ± 0.3	2.8	2416



REEL DIMENSIONS (mm)/QUANTITY PER REEL

Case Code	D1 ± 2.0	D2 ± 0.8	D3 ± 2.0	W	t ± 0.5	Qty/ Reel
B1	178	21	60.0	9.5 ±0.5	1.2	2,000
B2						3,000
B3						2,000
C1, C2, C3						2,000
D1, E1	330		80.0	14.0 ± 1.5	2.0	3,000
D2, E2						3,000
D3, D4, E3, E4						2,000



TAPE DIMENSIONS (mm)

Case Code	A ± 0.1	B ± 0.1	C ± 0.2	t ± 0.5	W ± 0.3	F ± 0.5	P ± 0.1	Dϕ ± 0.2
B1	1.9	3.5	1.5	0.25	8.0	3.5	4.0	1.0
B2			1.5					
B3			1.9					
C1	2.8	3.5	1.9	0.25	8.0	3.5	4.0	1.0
C2			1.9					
C3			2.5					
D1	3.8	5.1	2.0	0.30	12.0	5.5	8.0	1.5
D2			2.6					
D3 & D4			3.4					
E1	4.6	6.3	2.7	0.30	12.0	5.5	8.0	-
E2			2.7					
E3 & E4			3.5					

EMBOSSED PLASTIC CARRIER