





### **FEATURES**

- STANDARD EIA 0805 & 1206 PACKAGING
- EACH COMPONENT CONTAINS 4 ISOLATED CERAMIC CAPACITORS
- AVAILABLE IN A WIDE RANGE OF VALUES AND TEMPERATURE COEFFICIENTS

SPECIFICATIONS	NPO	X7R	X5R
OPERATING TEMPERATURE	-55°C~ +125°C	-55°C~ +125°C	-55°C~ +85°C
CAPACITANCE RANGE	10pF ~ 470pF	220pF ~ 0.1μF	0.1μF
VOLTAGE RANGE	16, 25, 50 &100Vdc	10, 16, 25 & 50Vdc	16Vdc
CAPACITANCE TOLERANCE	±5% (J), ±10%(K)	±10%(K), ±20%(M)	±10%(K), ±20%(M)
TEMPERATURE CHARACTERISTICS	0±30ppm	±15%	±15%
DIELECTRIC WITHSTANDING VOLTAGE	2.5	nute	
INSULATION RESISTANCE (after 1 minute)	>10GΩ	>10GΩ	>10GΩ
DISSIPATION FACTOR	< 0.1%	< 5%	< 5%

#### **NPO 0805 STANDARD VALUES AND VOLTAGES**

Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA0805NPO101J16TRPF		16	100	±5%
NCA0805NPO221J16TRPF		10	220	±5%
NCA0805NPO100J25TRPF			10	±5%
NCA0805NPO150J25TRPF			15	±5%
NCA0805NPO220J25TRPF			22	±5%
NCA0805NPO330J25TRPF		[	33	±5%
NCA0805NPO470J25TRPF			47	±5%
NCA0805NPO680J25TRPF		25	68	±5%
NCA0805NPO820J25TRPF			82	±5%
NCA0805NPO101J25TRPF			100	±5%
NCA0805NPO151J25TRPF			150	±5%
NCA0805NPO181J25TRPF			180	±5%
NCA0805NPO221J25TRPF			220	±5%
NCA0805NPO100J50TRPF	]		10	±5%
NCA0805NPO150J50TRPF			15	±5%
NCA0805NPO180J50TRPF			18	±5%
NCA0805NPO220J50TRPF		[	22	±5%
NCA0805NPO330J50TRPF	0805	[	33	±5%
NCA0805NPO390J50TRPF		[	39	±5%
NCA0805NPO470J50TRPF		[	47	±5%
NCA0805NPO560J50TRPF		50	56	±5%
NCA0805NPO680J50TRPF			68	±5%
NCA0805NPO820J50TRPF			82	±5%
NCA0805NPO101J50TRPF			100	±5%
NCA0805NPO121J50TRPF			120	±5%
NCA0805NPO151J50TRPF			150	±5%
NCA0805NPO181J50TRPF			180	±5%
NCA0805NPO221J50TRPF			220	±5%
NCA0805NPO100J100TRPF	]		10	±5%
NCA0805NPO150J100TRPF			15	±5%
NCA0805NPO220J100TRPF			22	±5%
NCA0805NPO330J100TRPF		100	33	±5%
NCA0805NPO470J100TRPF			47	±5%
NCA0805NPO680J100TRPF			68	±5%
NCA0805NPO101J100TRPF			100	±5%

NPO 0805 STANDARD VALUES AND VOLTAGES (CONTINUED ON NEXT PAGE)



# **Surface Mount Ceramic Capacitors**







# **NPO 1206 STANDARD VALUES AND VOLTAGES**

NCA1206NPO100J16TRPF   10	Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA1206NPO220J16TRPF NCA1206NPO330J16TRPF NCA1206NPO470J16TRPF NCA1206NPO470J16TRPF NCA1206NPO310J16TRPF NCA1206NPO21J16TRPF NCA1206NPO221J16TRPF NCA1206NPO31J16TRPF NCA1206NPO31J16TRPF NCA1206NPO31J16TRPF NCA1206NPO31J16TRPF NCA1206NPO21J16TRPF NCA1206NPO470J16TRPF NCA1206NPO150J25TRPF NCA1206NPO202J25TRPF NCA1206NPO230J25TRPF NCA1206NPO470J25TRPF NCA1206NPO470J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO160J25TRPF NCA1206NPO21J25TRPF NCA1206NPO21J25TRPF NCA1206NPO21J25TRPF NCA1206NPO21J25TRPF NCA1206NPO21J25TRPF NCA1206NPO30JJ25TRPF NCA1206NPO30JJ25TRPF NCA1206NPO30J50TRPF NCA1206NPO30J50TRPF NCA1206NPO30J50TRPF NCA1206NPO160J50TRPF NCA1206NPO160J50TRPF NCA1206NPO20J50TRPF NCA1206NPO30J50TRPF NCA		Case Size	voltage		
NCA1206NPO330J16TRPF     NCA1206NPO680J16TRPF     NCA1206NPO680J16TRPF     NCA1206NPO21J16TRPF     NCA1206NPO22JJ16TRPF     NCA1206NPO22JJ16TRPF     NCA1206NPO33JJ16TRPF     NCA1206NPO33JJ16TRPF     NCA1206NPO33JJ16TRPF     NCA1206NPO33JJ16TRPF     NCA1206NPO33JJ16TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO20J25TRPF     NCA1206NPO330J25TRPF     NCA1206NPO330J25TRPF     NCA1206NPO470J25TRPF     NCA1206NPO470J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO33JJ25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO21J25TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO330J50TRPF     NCA1206NPO330J50TRPF     NCA1206NPO390J50TRPF     NCA1206NPO390J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO15J50TRPF     NCA1206NPO15J50TRPF     NCA1206NPO15J50TRPF     NCA1206NPO15J50TRPF     NCA1206NPO39J50TRPF     NCA1206NPO33J50TRPF     NCA1206NPO33J50TRPF     NCA1206NPO33J50TRPF     NCA1206NPO33J50TRPF     NCA1206NP					
NCA1206NPO470J16TRPF		$\dashv$			
NCA1206NPO680J16TRPF					
NCA1206NPO101J16TRPF			16		
NCA1206NPO221J16TRPF			16		
NCA1206NPO331J16TRPF     NCA1206NPO471J16TRPF     NCA1206NPO100J25TRPF     NCA1206NPO150J25TRPF     NCA1206NPO330J25TRPF     NCA1206NPO330J25TRPF     NCA1206NPO330J25TRPF     NCA1206NPO680J25TRPF     NCA1206NPO680J25TRPF     NCA1206NPO680J25TRPF     NCA1206NPO10J25TRPF     NCA1206NPO10J125TRPF     NCA1206NPO10J125TRPF     NCA1206NPO10J125TRPF     NCA1206NPO18JJ25TRPF     NCA1206NPO22JJ25TRPF     NCA1206NPO22JJ25TRPF     NCA1206NPO22JJ25TRPF     NCA1206NPO27JJ25TRPF     NCA1206NPO27JJ25TRPF     NCA1206NPO33JJ25TRPF     NCA1206NPO27JJ25TRPF     NCA1206NPO33JJ25TRPF     NCA1206NPO33JJ25TRPF     NCA1206NPO10J50TRPF     NCA1206NPO10J50TRPF     NCA1206NPO33DJ50TRPF     NCA1206NPO33DJ50TRPF     NCA1206NPO33DJ50TRPF     NCA1206NPO33DJ50TRPF     NCA1206NPO33DJ50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO30J50TRPF     NCA1206NPO15J50TRPF     NCA1206NPO30JJ50TRPF     NCA1206NPO33JJ50TRPF     NCA		$\dashv$			
NCA1206NPO471J16TRPF					
NCA1206NPO100J25TRPF		$\dashv$			
NCA1206NPO150J25TRPF		_		\	
NCA1206NPO220J25TRPF		$\dashv$			
NCA1206NPO330J25TRPF		_			
NCA1206NPO470J25TRPF					
NCA1206NPO680J25TRPF       68       ±5%         NCA1206NPO101J25TRPF       100       ±5%         NCA1206NPO181J25TRPF       150       ±5%         NCA1206NPO221J25TRPF       180       ±5%         NCA1206NPO271J25TRPF       220       ±5%         NCA1206NPO271J25TRPF       270       ±5%         NCA1206NPO331J25TRPF       270       ±5%         NCA1206NPO331J25TRPF       330       ±5%         NCA1206NPO100J50TRPF       470       ±5%         NCA1206NPO150J50TRPF       10       ±5%         NCA1206NPO180J50TRPF       15       ±5%         NCA1206NPO330J50TRPF       1206       22       ±5%         NCA1206NPO330J50TRPF       1206       22       ±5%         NCA1206NPO30J50TRPF       33       ±5%         NCA1206NPO30J50TRPF       47       ±5%         NCA1206NPO470J50TRPF       47       ±5%         NCA1206NPO680J50TRPF       56       ±5%         NCA1206NPO151J50TRPF       56       ±5%         NCA1206NPO151J50TRPF       150       ±5%         NCA1206NPO21J50TRPF       150       ±5%         NCA1206NPO31J50TRPF       150       ±5%         NCA1206NPO331J50TRPF <td< td=""><td></td><td>_</td><td></td><td></td><td></td></td<>		_			
NCA1206NPO101J25TRPF         25         100         ±5%           NCA1206NPO151J25TRPF         150         ±5%           NCA1206NPO21J25TRPF         180         ±5%           NCA1206NPO221J25TRPF         220         ±5%           NCA1206NPO271J25TRPF         270         ±5%           NCA1206NPO31J25TRPF         330         ±5%           NCA1206NPO471J25TRPF         470         ±5%           NCA1206NPO180J50TRPF         10         ±5%           NCA1206NPO180J50TRPF         15         ±5%           NCA1206NPO330J50TRPF         18         ±5%           NCA1206NPO330J50TRPF         1206         22         ±5%           NCA1206NPO330J50TRPF         33         ±5%           NCA1206NPO390J50TRPF         47         ±5%           NCA1206NPO680J50TRPF         47         ±5%           NCA1206NPO680J50TRPF         56         ±5%           NCA1206NPO151J50TRPF         56         ±5%           NCA1206NPO151J50TRPF         150         ±5%           NCA1206NPO221J50TRPF         150         ±5%           NCA1206NPO271J50TRPF         180         ±5%           NCA1206NPO331J50TRPF         180         ±5%           NCA1206NPO3					
NCA1206NPO151J25TRPF					
NCA1206NPO181J25TRPF			25		
NCA1206NPO221J25TRPF					
NCA1206NPO271J25TRPF	NCA1206NPO181J25TRPF			180	
NCA1206NPO331J25TRPF	NCA1206NPO221J25TRPF			220	
NCA1206NPO471J25TRPF	NCA1206NPO271J25TRPF			270	
NCA1206NPO10J50TRPF	NCA1206NPO331J25TRPF			330	±5%
NCA1206NPO150J50TRPF	NCA1206NPO471J25TRPF	_		470	±5%
NCA1206NPO180J50TRPF       1206       22       ±5%         NCA1206NPO220J50TRPF       33       ±5%         NCA1206NPO390J50TRPF       33       ±5%         NCA1206NPO470J50TRPF       47       ±5%         NCA1206NPO560J50TRPF       56       ±5%         NCA1206NPO10J50TRPF       56       ±5%         NCA1206NPO12J50TRPF       100       ±5%         NCA1206NPO15J50TRPF       150       ±5%         NCA1206NPO18J50TRPF       180       ±5%         NCA1206NPO27J50TRPF       220       ±5%         NCA1206NPO37J50TRPF       270       ±5%         NCA1206NPO39J50TRPF       330       ±5%         NCA1206NPO39J50TRPF       390       ±5%         NCA1206NPO39J50TRPF       470       ±5%         NCA1206NPO47J50TRPF       10       ±5%         NCA1206NPO150J100TRPF       10       ±5%         NCA1206NPO30J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%	NCA1206NPO100J50TRPF			10	±5%
NCA1206NPO220J50TRPF       1206       22       ±5%         NCA1206NPO330J50TRPF       33       ±5%         NCA1206NPO390J50TRPF       39       ±5%         NCA1206NPO560J50TRPF       47       ±5%         NCA1206NPO680J50TRPF       56       ±5%         NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO151J50TRPF       120       ±5%         NCA1206NPO181J50TRPF       150       ±5%         NCA1206NPO221J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO331J50TRPF       270       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO150J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%	NCA1206NPO150J50TRPF			15	±5%
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NCA1206NPO390J50TRPF       39       ±5%         NCA1206NPO470J50TRPF       47       ±5%         NCA1206NPO560J50TRPF       56       ±5%         NCA1206NPO680J50TRPF       68       ±5%         NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO151J50TRPF       120       ±5%         NCA1206NPO181J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO271J50TRPF       270       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO150J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO220J50TRPF	1206		22	±5%
NCA1206NPO470J50TRPF       47       ±5%         NCA1206NPO560J50TRPF       56       ±5%         NCA1206NPO680J50TRPF       68       ±5%         NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO151J50TRPF       120       ±5%         NCA1206NPO181J50TRPF       150       ±5%         NCA1206NPO221J50TRPF       180       ±5%         NCA1206NPO271J50TRPF       220       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%	NCA1206NPO330J50TRPF			33	±5%
NCA1206NPO560J50TRPF       56       ±5%         NCA1206NPO680J50TRPF       68       ±5%         NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO151J50TRPF       120       ±5%         NCA1206NPO181J50TRPF       150       ±5%         NCA1206NPO221J50TRPF       180       ±5%         NCA1206NPO271J50TRPF       220       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO390J50TRPF			39	
NCA1206NPO680J50TRPF       50       68       ±5%         NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO121J50TRPF       120       ±5%         NCA1206NPO151J50TRPF       150       ±5%         NCA1206NPO21J50TRPF       180       ±5%         NCA1206NPO271J50TRPF       220       ±5%         NCA1206NPO331J50TRPF       270       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO150J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%	NCA1206NPO470J50TRPF			47	
NCA1206NPO101J50TRPF       50       100       ±5%         NCA1206NPO121J50TRPF       120       ±5%         NCA1206NPO151J50TRPF       150       ±5%         NCA1206NPO181J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO331J50TRPF       270       ±5%         NCA1206NPO391J50TRPF       330       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%	NCA1206NPO560J50TRPF			56	
NCA1206NPO101J50TRPF       100       ±5%         NCA1206NPO121J50TRPF       120       ±5%         NCA1206NPO151J50TRPF       150       ±5%         NCA1206NPO181J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO31J50TRPF       270       ±5%         NCA1206NPO391J50TRPF       330       ±5%         NCA1206NPO471J50TRPF       390       ±5%         NCA1206NPO100J100TRPF       470       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO680J50TRPF		50	68	±5%
NCA1206NPO151J50TRPF       150       ±5%         NCA1206NPO181J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO271J50TRPF       270       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO250J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO101J50TRPF		30	100	±5%
NCA1206NPO181J50TRPF       180       ±5%         NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO271J50TRPF       270       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO220J100TRPF       15       ±5%         NCA1206NPO330J100TRPF       22       ±5%         NCA1206NPO470J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO121J50TRPF			120	±5%
NCA1206NPO221J50TRPF       220       ±5%         NCA1206NPO271J50TRPF       270       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO151J50TRPF			150	±5%
NCA1206NPO271J50TRPF       270       ±5%         NCA1206NPO331J50TRPF       330       ±5%         NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO181J50TRPF			180	±5%
NCA1206NPO331J50TRPF     330     ±5%       NCA1206NPO391J50TRPF     390     ±5%       NCA1206NPO471J50TRPF     470     ±5%       NCA1206NPO100J100TRPF     10     ±5%       NCA1206NPO150J100TRPF     15     ±5%       NCA1206NPO220J100TRPF     22     ±5%       NCA1206NPO330J100TRPF     33     ±5%       NCA1206NPO470J100TRPF     47     ±5%	NCA1206NPO221J50TRPF			220	±5%
NCA1206NPO391J50TRPF       390       ±5%         NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO271J50TRPF			270	±5%
NCA1206NPO471J50TRPF       470       ±5%         NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO331J50TRPF			330	±5%
NCA1206NPO100J100TRPF       10       ±5%         NCA1206NPO150J100TRPF       15       ±5%         NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO391J50TRPF			390	±5%
NCA1206NPO150J100TRPF     15     ±5%       NCA1206NPO220J100TRPF     22     ±5%       NCA1206NPO330J100TRPF     33     ±5%       NCA1206NPO470J100TRPF     47     ±5%	NCA1206NPO471J50TRPF			470	±5%
NCA1206NPO220J100TRPF       22       ±5%         NCA1206NPO330J100TRPF       33       ±5%         NCA1206NPO470J100TRPF       47       ±5%	NCA1206NPO100J100TRPF	$\neg$		10	±5%
NCA1206NPO330J100TRPF     33     ±5%       NCA1206NPO470J100TRPF     47     ±5%	NCA1206NPO150J100TRPF			15	±5%
NCA1206NPO470J100TRPF 47 ±5%	NCA1206NPO220J100TRPF			22	±5%
NCA1206NPO470J100TRPF 47 ±5%	NCA1206NPO330J100TRPF			33	
					+
			100	68	+
NCA1206NPO101J100TRPF 100 ±5%					
NCA1206NPO151J100TRPF 150 ±5%	NCA1206NPO151J100TRPF				
NCA1206NPO221J100TRPF 220 ±5%		$\neg$			_
NCA1206NPO331J100TRPF 330 ±5%					
NCA1206NPO471J100TRPF 470 ±5%					

NPO 1206 STANDARD VALUES AND VOLTAGES (CONTINUED ON NEXT PAGE)







# X7R 0805 STANDARD VALUES AND VOLTAGES

Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA0805X7R102K10TRPF			1,000	±10%
NCA0805X7R222K10TRPF			2,200	±10%
NCA0805X7R472K10TRPF			4,700	±10%
NCA0805X7R103K10TRPF		10	10,000	±10%
NCA0805X7R223K10TRPF			22,000	±10%
NCA0805X7R473K10TRPF			47,000	±10%
NCA0805X7R104K10TRPF			100,000	±10%
NCA0805X7R102K16TRPF			1,000	±10%
NCA0805X7R222K16TRPF			2,200	±10%
NCA0805X7R472K16TRPF	0805		4,700	±10%
NCA0805X7R103K16TRPF	0605	16	10,000	±10%
NCA0805X7R223K16TRPF		10	22,000	±10%
NCA0805X7R273K16TRPF			27,000	±10%
NCA0805X7R473K16TRPF			47,000	±10%
NCA0805X7R104K16TRPF			100,000	±10%
NCA0805X7R102K25TRPF			1,000	±10%
NCA0805X7R222K25TRPF		25	2,200	±10%
NCA0805X7R472K25TRPF		25	4,700	±10%
NCA0805X7R103K25TRPF			10,000	±10%
NCA0805X7R102K50TRPF		50	1,000	±10%

### X7R 1206 STANDARD VALUES AND VOLTAGES

Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA1206X7R103K16TRPF			10,000	±10%
NCA1206X7R223K16TRPF			22,000	±10%
NCA1206X7R333K16TRPF		16	33,000	±10%
NCA1206X7R473K16TRPF		10	47,000	±10%
NCA1206X7R683K16TRPF			68,000	±10%
NCA1206X7R104K16TRPF			100,000	±10%
NCA1206X7R331K25TRPF			330	±10%
NCA1206X7R471K25TRPF			470	±10%
NCA1206X7R102K25TRPF			1,000	±10%
NCA1206X7R152K25TRPF	1206		1,500	±10%
NCA1206X7R222K25TRPF			2,200	±10%
NCA1206X7R332K25TRPF			3,300	±10%
NCA1206X7R472K25TRPF		25	4,700	±10%
NCA1206X7R682K25TRPF			6,800	±10%
NCA1206X7R822K25TRPF			8,200	±10%
NCA1206X7R103K25TRPF			10,000	±10%
NCA1206X7R223K25TRPF			22,000	±10%
NCA1206X7R473K25TRPF			47,000	±10%
NCA1206X7R104K25TRPF			100,000	±10%

X7R 0805 STANDARD VALUES AND VOLTAGES (CONTINUED ON NEXT PAGE)







### X7R 1206 STANDARD VALUES AND VOLTAGES

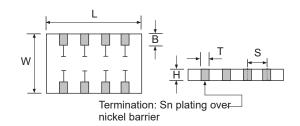
Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA1206X7R221K50TRPF			220	±10%
NCA1206X7R271K50TRPF			270	±10%
NCA1206X7R331K50TRPF			330	±10%
NCA1206X7R391K50TRPF			390	±10%
NCA1206X7R471K50TRPF			470	±10%
NCA1206X7R561K50TRPF			560	±10%
NCA1206X7R681K50TRPF			680	±10%
NCA1206X7R821K50TRPF			820	±10%
NCA1206X7R102K50TRPF			1,000	±10%
NCA1206X7R152K50TRPF			1,500	±10%
NCA1206X7R222K50TRPF	1206	50	2,200 3,300 4,700 5,600 6,800	±10%
NCA1206X7R332K50TRPF		30		±10%
NCA1206X7R472K50TRPF				±10%
NCA1206X7R562K50TRPF				±10%
NCA1206X7R682K50TRPF				±10%
NCA1206X7R822K50TRPF			8,200	±10%
NCA1206X7R103K50TRPF			10,000	±10%
NCA1206X7R153K50TRPF			15,000	±10%
NCA1206X7R223K50TRPF			22,000	±10%
NCA1206X7R333K50TRPF			33,000	±10%
NCA1206X7R473K50TRPF			47,000	±10%
NCA1206X7R104K50TRPF			100,000	±10%

### X5R 0805 STANDARD VALUES AND VOLTAGES

Part Number	Case Size	Voltage	Capacitance (pF)	Standard Tol.
NCA0805X5R104K16TRPF	0805	16	100.000	±10%

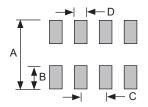
# PART DIMENSIONS (mm)

Series	NCA0805	NCA1206
L	2.00 ± 0.20	3.20 ± 0.20
W	1.25 ± 0.20	1.60 ± 0.20
Н	1.00 max.	1.30 max.
S	0.50 ± 0.10	0.80 ± 0.20
Т	0.28 ± 0.10	0.40 ± 0.15
В	0.25 ±0.15	$0.30 \pm 0.20$

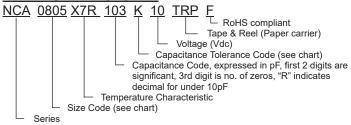


# **RECOMMENDED LAND PATTERN (mm)**

Se	ries	А	В	С	D
NCA	0805	1.65 ± 0.10	0.55 ± 0.05	$0.5 \pm 0.05$	0.25 ± 05
NCA	1206	2.60 ± 0.10	0.80 ± 0.05	0.8 ± 0.10	0.45 ±0.1



## **PART NUMBER SYSTEM**



# Performance Passives By Design

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# **Surface Mount Ceramic Capacitors**



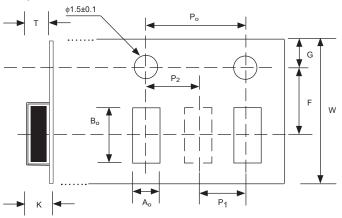




# **TAPE DIMENSIONS (mm)**

A <sub>o</sub>	B <sub>0</sub>	F	G	K	$P_0$	P <sub>1</sub>	$P_2$	Т	W
See r	note 1	3.50 ±0.05	1.75 ±0.1	2.50 max.	4.0 ±0.1	4.0 ±0.1	2.0 ±0.05	0.6 max.	8.0 ±0.3

Note 1 - These dimensions are deterined by the maximum dimensions of the part. Clearance between the sides of the components shall be 0.05mm (min.) and 0.50mm (max). The clearance shall not allow the component to rotate more than 20° within the carrier cavity.



# **REEL DIMENSIONS (mm)**

Α	В	С	D	E	W
178 ± 2.0	50 min.	13.0 ± 0.2	20.2 min.	1.5 min.	8.4 ± 1.0

