Chip ordering information - Novacap parts

knowles
DLI•JohansonMFG•Novacap•Syfer•Voltronics

XX	1206	N	472	J	101	N	X050	H	T	M	HB
Prefix	Case Size	Dielectric	Capacitance Codes	Capacitance Tolerance	Voltage	Termination	Special Thickness	High Reliability Testing	Packaging	Marking	High Reliability Test Criteria

Prefix Definitions

None	Standard chip	
RF	Improved ESR Capacitor	p. 39
ST	Stacked Capacitor Assembly	p. 76 - 81
SM	Stacked Hi-Rel Capacitor Assembly	p. 76 - 81
CR	Cap Rack Arrays	p. 82

Dielectric Codes

N	C0G/NP0	Ultra Stable
K	R3L	Ultra Stable
B	X7R	Stable
W	X5R	Stable
X	BX	MIL
BB	X7R	Stable BME
BW	X5R	Stable BME
M	C0G/NP0	Non Magnetic
C	X7R	Non Magnetic
F	C0G/NP0	High Temp. (up to 160ºC)
D, RD	C0G/NP0	High Temp. (up to 200ºC)
S	X8R	High Temp. (up to 150ºC)
E, RE	Class II	High Temp. (up to 200ºC)
G	Class II	High Temp. (up to 160ºC)
RN	C0G/NP0	Lead free
RB	X7R	Lead free

Capacitance Codes

1st two digits are significant figures of capacitance, 3rd digit denotes number of zeros, R = decimal point Examples:

1R0	1.0pF
120	12pF
471	470pF
102	1,000pF
273	0.027µF
474	0.47µF
105	1.0µF

Voltage Code

1st two digits are significant, third digit denotes number of zeros. For example:

160	16 Volts
101	100 Volts
501	500 Volts
102	1,000 Volts
502	5,000 Volts
103	10,000 Volts

Special Thickness

None	Standard thickness as per Novacap catalog specifications
X	Denotes a special thickness other than standard. Specify in inches if required. (As shown above X = 0.050")

High Reliability Testing

None	Standard product
H	High Reliability Testing
H	High Temp Screening

Termination Codes

P	Palladium Silver	
PR	Palladium Silver*	
K	Solderable Palladium Silver*	
N	Nickel Barrier*	100% tin
Y	Nickel Barrier	90% tin, 10% lead
NG	Nickel Barrier Gold Flash*	
C	FlexiCap™/Nickel Barrier*	100% tin
D	FlexiCap™/Nickel Barrier	90% tin, 10% lead
B	Copper Barrier*	100% tin
E	Copper Barrier	90% tin, 10% lead
S	Silver*	

*Indicates RoHS terminations

Marking

None	Unmarked
M	Marked *Marking not available on sizes ≤ 0603

Note: Refer to page 17.

Packaging

None	Bulk
T	Tape and Reel
W	Waffle Pack

High Reliability Testing Criteria

HB	MIL-PRF-55681 Group A
HV	MIL-PRF-49467 Group A
HS	MIL-PRF-123 Group A
HK	MIL-PRF-38534 Class K

Capacitance Tolerance Codes

Code	Tolerance		C0G/NP0			R3L	X7R		BX	X8R	Class II	X5R
	* Not RF series		N	M	F/D, RD	K	B	C, RE	X	S	E/G	W
B	±0.10pF	Cap. Value < 10pF	•	•								
C	±0.25pF		•	•		•						
D	±0.50pF		•	•		•						
F	±1%		•	•	•							
G	±2%		•	•	•	•						
J	±5%		•	•	•	•	•*	•	•*	•	•	
K	±10%		•	•	•	•	•	•	•	•	•	•
M	±20%		•		•	•	•	•	•	•	•	•