



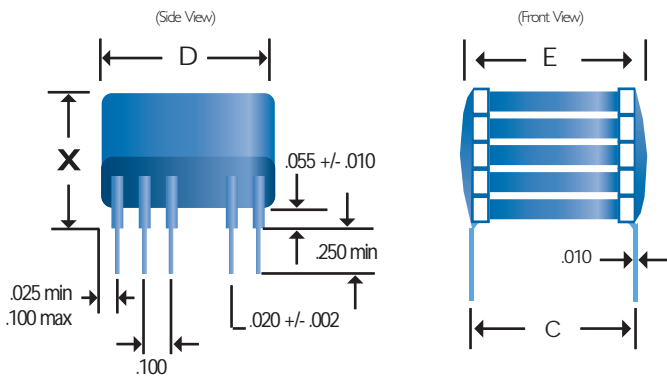
# ST AND SM - CAPACITOR ASSEMBLIES



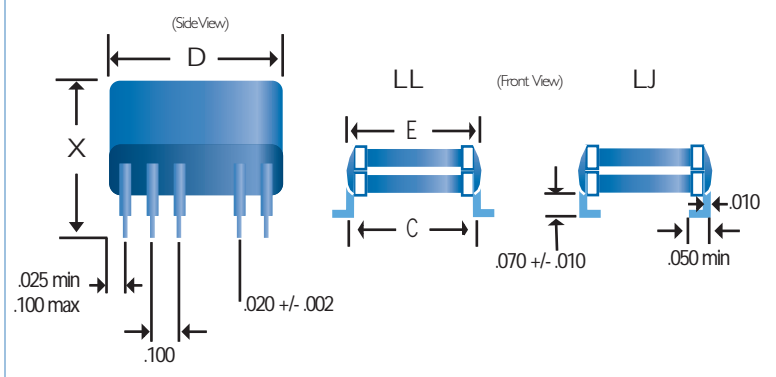
NOVACAP capacitor assemblies with low equivalent series resistance (ESR) and low equivalent series inductance (ESL) are available in dielectric characteristics COG and X7R available for use in high power or high frequency applications, as replacement for tantalums and aluminum electrolytics. The leaded configurations safeguard the device against thermal and mechanical stresses, and include thru-hole and surface mount J and L style leads, bonded with high temperature solder. Applications include input and output filters in switch mode power supplies, high capacitance discharge circuits, and high temperature filtering/decoupling. Other sizes and voltage ratings than indicated in the tables are available, consult NOVACAP.

## LEAD CONFIGURATION AND ASSEMBLY OPTIONS

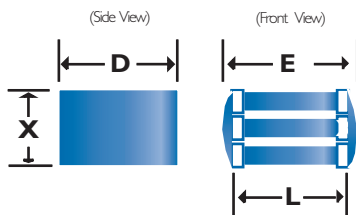
LN (straight wire leads)



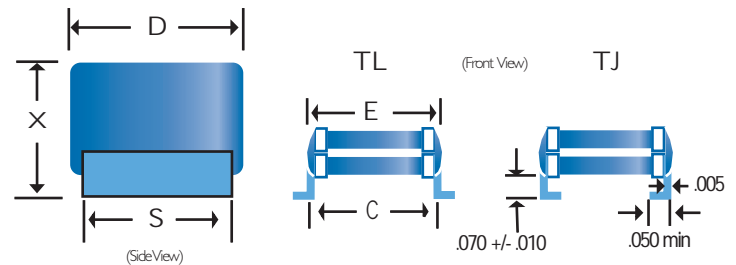
LJ & LL (bent wire leads)



NN or NP (no leads)



TJ & TL (tab leads)

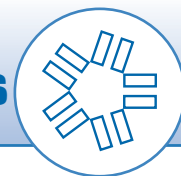


## DIMENSIONS

SIZE	1812	1825	2225	3640	4540	5550	7565
C +/- .025	.210 (5.33)	.210 (5.33)	.250 (6.35)	.400 (10.2)	.480 (12.2)	.580 (14.7)	.780 (19.8)
D +/- .025	.125 (3.18)	.250 (6.35)	.250 (6.35)	.400 (10.2)	.400 (10.2)	.500 (12.7)	.650* (16.5)
E (MAXIMUM)	.260 (6.60)	.260 (6.60)	.300 (7.62)	.430 (10.9)	.530 (13.5)	.630 (16.0)	.830 (21.1)
X (MAXIMUM)	.600 (15.2)	.600 (15.2)	.715 (18.2)	.715 (18.2)	.715 (18.2)	.715 (18.2)	.715 (18.2)
L (NOMINAL)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.360 (9.14)	.450 (11.4)	.550 (14.0)	.750 (19.1)
LEADS/SIDE	N/A	3	3	4	4	5	6

Dimensions in inches; bracketed dimensions in millimeters  
 \* +/- .035". Contact the factory for RoHS compliant product.

# ST AND SM - CAPACITOR ASSEMBLIES



The ST series provide the highest capacitance available, based on chip designs for general purpose use. The assemblies are 100% tested for Dielectric Withstanding Voltage, Insulation Resistance, Capacitance, and Dissipation Factor.

The SM series are designed and tested for high reliability military and industrial applications. The parts are tested per Group A of MIL-PRF-49470 (DSCC 87106). NOVACAP has a complete testing facility. Please contact the factory for any additional military testing requirements.

## “ST” SERIES (GENERAL PURPOSE)

### MAXIMUM CAPACITANCE (FULL STACK OF 5 CHIPS) & VOLTAGE SELECTION

3 digit code: two significant digits, followed by number of zeros eg: 273 = 27,000 pF

SIZE	1812		1825		2225		3640		4540		5550		7565	
	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R
50V	154	395	334	685	394	825	105	226	125	276	185	396	275	686
100V	124	335	274	565	334	685	824	156	105	186	125	226	225	396
200V	104	225	224	395	274	475	564	825	684	106	824	156	155	276
500V	393	474	823	105	104	155	224	225	224	275	334	335	684	565

## “SM” SERIES (HIGH RELIABILITY)

### MAXIMUM CAPACITANCE (FULL STACK OF 5 CHIPS) & VOLTAGE SELECTION

3 digit code: two significant digits, followed by number of zeros eg: 273 = 27,000 pF

SIZE	1812		1825		2225		3640		4540		5550		7565	
	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R	COG	X7R
50V	154	335	334	565	394	825	105	186	105	226	125	336	275	566
100V	124	275	274	475	334	685	824	126	824	126	105	186	225	336
200V	104	155	224	275	274	395	474	685	564	825	684	126	155	226
500V	223	274	473	564	563	824	154	185	184	225	224	275	474	475

## HOW TO ORDER

ST	3640	B	156	K	101	LJ	X	W	5
<b>STYLE</b> ST = General Purpose  SM = High Reliability	<b>SIZE</b> See Chart	<b>DIELECTRIC</b> N = COG B = X7R	<b>CAPACITANCE</b> Value in Picofarads Two significant figures, followed by number of zeros: 825=8,200,000 pF (8.2mF)	<b>TOLERANCE</b> F = +/- 1.0 % G = +/- 2.0 % H = +/- 3.0 %  J = +/- 5.0 % K = +/- 10 % M = +/- 20 % Z = +80% -20% P = +100% -0%	<b>VOLTAGE-VDCW</b> Two significant figures, followed by number of zeros: 101 = 100V	<b>LEAD STYLE</b> LN = Straight LL = L Lead LJ = J Lead TL = L Tab TJ = J Tab NN = Nickel NP = Pd/Ag (1812: no LN LJ or LL)	<b>THICKNESS OPTION</b> Specify Standoff dimension (X) if less than max.	<b>PACKING OPTION</b> W=Waffle T=Reeled *  * Consult Factory for Availability	<b>NUMBER OF CHIPS</b>

For complete detail of stacked parts refer to Novacap ST and SM Capacitor Assembly Catalog at [www.novacap.com/capassemblies.php](http://www.novacap.com/capassemblies.php)