

# Radial Leads/SkyCap®/SL Series



## GENERAL INFORMATION

### AVX SL Series

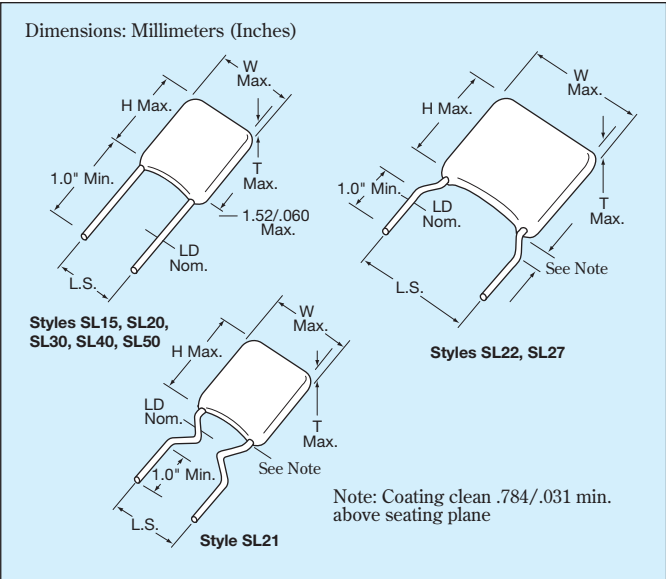
#### Conformally Coated Radial Leaded MLC

Temperature Coefficients: C0G (NP0), X7R, Z5U

200, 100, 50 Volts (300V, 400V & 500V also available)

Case Material: Epoxy

Lead Material: Solderable Sn/Pb



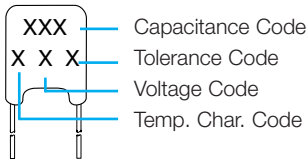
## HOW TO ORDER

| SL21                                                         | 5                                                                   | E                                   | 104                                                                                                                                                                                                                                   | M                                                                                                                                                                                                                                                                     | A                  | B                                  | TR1                                                                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVX Style                                                    | Voltage                                                             | Temperature Coefficient             | Capacitance                                                                                                                                                                                                                           | Capacitance Tolerance                                                                                                                                                                                                                                                 | Failure Rate       | Leads                              | Packaging                                                                                                                                                                               |
| SL15<br>SL20<br>SL21<br>SL22<br>SL27<br>SL30<br>SL40<br>SL50 | 5 = 50V<br>1 = 100V<br>2 = 200V<br>9 = 300V<br>8 = 400V<br>7 = 500V | A = C0G (NP0)<br>C = X7R<br>E = Z5U | First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros. For example, order 100,000 pF as 104. (For values below 10pF use "R" in place of decimal point, e.g., 1R4 = 1.4pF) | C0G (NP0):<br>C = $\pm 25\text{pF}$<br>D = $\pm 5\text{pF}$<br>F = $\pm 1\%$ (>50pF only)<br>G = $\pm 2\%$ (>25pF only)<br>J = $\pm 5\%$<br>K = $\pm 10\%$<br>X7R:<br>J = $\pm 5\%$<br>K = $\pm 10\%$<br>M = $\pm 20\%$<br>Z5U:<br>M = $\pm 20\%$<br>Z = $+80\%$ -20% | A = Not Applicable | B = Leads Sn/Pb (Tin lead product) | Blank = Bulk Packaging<br>T = Trimmed Leads .230" $\pm$ .030"<br>Bulk packaging<br>TR1 = Tape and Reel Packaging<br>AP1 = Ammopack Packaging<br>See packaging specification page 33-34. |

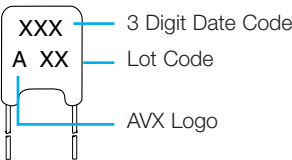
Not RoHS Compliant

## MARKING

### FRONT



### BACK



## PACKAGING REQUIREMENTS

|                          | Quantity per Bag |
|--------------------------|------------------|
| SL15, 20, 21, 22, 27, 30 | 1000 Pieces      |
| SL40, 50                 | 500 Pieces       |

Note: SL15, SL20, SL21, SL30, and SL40 available on tape and reel per EIA specifications RS-468. See Pages 33 and 34.

# Radial Leads/SkyCap®/SL Series



C0G (NP0) Dielectric

## SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style                                         |                                                    | SL15               |  |  | SL20               |  |  | SL21               |  |  | SL22               |  |  | SL27               |  |  | SL30           |  |  | SL40            |  |  | SL50            |  |  |
|---------------------------------------------------|----------------------------------------------------|--------------------|--|--|--------------------|--|--|--------------------|--|--|--------------------|--|--|--------------------|--|--|----------------|--|--|-----------------|--|--|-----------------|--|--|
| AVX “Insertable”                                  |                                                    | SL07               |  |  | SL29               |  |  | SL59               |  |  | N/A                |  |  | N/A                |  |  | SL65           |  |  | SL75            |  |  | N/A             |  |  |
| Width (W)                                         |                                                    | 3.81<br>(.150)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 6.604<br>(.260)    |  |  | 7.62<br>(.300) |  |  | 10.16<br>(.400) |  |  | 12.70<br>(.500) |  |  |
| Height (H)                                        |                                                    | 3.81<br>(.150)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 5.08<br>(.200)     |  |  | 6.35<br>(.250)     |  |  | 7.62<br>(.300) |  |  | 10.16<br>(.400) |  |  | 12.70<br>(.500) |  |  |
| Thickness (T)                                     |                                                    | 2.54<br>(.100)     |  |  | 3.175<br>(.125)    |  |  | 3.175<br>(.125)    |  |  | 3.175<br>(.125)    |  |  | 4.06<br>(.160)     |  |  | 3.81<br>(.150) |  |  | 3.81<br>(.150)  |  |  | 5.08<br>(.200)  |  |  |
| Lead Spacing (L.S.)                               |                                                    | 2.54<br>(.100)     |  |  | 2.54<br>(.100)     |  |  | 5.08<br>(.200)     |  |  | 6.35<br>(.250)     |  |  | 7.62<br>(.300)     |  |  | 5.08<br>(.200) |  |  | 5.08<br>(.200)  |  |  | 10.16<br>(.400) |  |  |
| Lead Diameter (L.D.)                              |                                                    | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020)     |  |  | .508<br>(.020) |  |  | .508<br>(.020)  |  |  | .635<br>(.025)  |  |  |
| Cap. in.* Industry Preferred<br>pF Values in Blue |                                                    | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>200 100 50 |  |  | WVDC<br>100 50 |  |  | WVDC<br>100 50  |  |  | WVDC<br>100 50  |  |  |
| 1.0-9.9<br>10<br>15                               | SL151A1R0DAB<br>SL151A100KAB<br>SL-----A150KAB     |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 22<br>33<br>39                                    | SL-----A220KAB<br>SL-----A330KAB<br>SL-----A390KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 47<br>68<br>100                                   | SL-----A470KAB<br>SL-----A680KAB<br>SL151A101KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 150<br>220<br>330                                 | SL-----A151KAB<br>SL-----A221KAB<br>SL-----A331KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 390<br>470<br>680                                 | SL-----A391KAB<br>SL-----A471KAB<br>SL-----A681KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 1000<br>1500<br>2200                              | SL211A102KAB<br>SL-----A152KAB<br>SL-----A222KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 3900<br>4700<br>6800                              | SL-----A392KAB<br>SL-----A472KAB<br>SL-----A682KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 8200<br>10,000<br>15,000                          | SL-----A822KAB<br>SL305A103KAB<br>SL-----A153KAB   |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 22,000<br>33,000<br>39,000                        | SL-----A223KAB<br>SL-----A333KAB<br>SL-----A393KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |
| 47,000<br>68,000<br>100,000                       | SL-----A473KAB<br>SL-----A683KAB<br>SL-----A104KAB |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                    |  |  |                |  |  |                 |  |  |                 |  |  |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

 = Industry preferred values  
 = SL20 only

**NOTE:** Capacitance Ranges available for SL12 same as SL15  
 SL62 same as SL21  
 SL64 same as SL30  
 SL89 same as SL21



# Radial Leads/SkyCap®/SL Series



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

| EIA Characteristic                          |                | Dimensions: Millimeters (Inches) |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
|---------------------------------------------|----------------|----------------------------------|-----|----|-----------------|-----|----|-----------------|-----|----|-----------------|----|-----------------|----|----------------|-----|----|-----------------|-----|----|-----------------|-----|----|
| AVX Style                                   |                | SL15                             |     |    | SL20            |     |    | SL21            |     |    | SL22            |    | SL27            |    | SL30           |     |    | SL40            |     |    | SL50            |     |    |
| AVX "Insertable"                            |                | SL07                             |     |    | SL29            |     |    | SL59            |     |    | N/A             |    | N/A             |    | SL65           |     |    | SL75            |     |    | N/A             |     |    |
| Width (W)                                   |                | 3.81<br>(.150)                   |     |    | 5.08<br>(.200)  |     |    | 5.08<br>(.200)  |     |    | 5.08<br>(.200)  |    | 6.604<br>(.260) |    | 7.62<br>(.300) |     |    | 10.16<br>(.400) |     |    | 12.70<br>(.500) |     |    |
| Height (H)                                  |                | 3.81<br>(.150)                   |     |    | 5.08<br>(.200)  |     |    | 5.08<br>(.200)  |     |    | 5.08<br>(.200)  |    | 6.35<br>(.250)  |    | 7.62<br>(.300) |     |    | 10.16<br>(.400) |     |    | 12.70<br>(.500) |     |    |
| Thickness (T)                               |                | 2.54<br>(.100)                   |     |    | 3.175<br>(.125) |     |    | 3.175<br>(.125) |     |    | 3.175<br>(.125) |    | 4.06<br>(.160)  |    | 3.81<br>(.150) |     |    | 3.81<br>(.150)  |     |    | 5.08<br>(.200)  |     |    |
| Lead Spacing (L.S.)                         |                | 2.54<br>(.100)                   |     |    | 2.54<br>(.100)  |     |    | 5.08<br>(.200)  |     |    | 6.35<br>(.250)  |    | 7.62<br>(.300)  |    | 5.08<br>(.200) |     |    | 5.08<br>(.200)  |     |    | 10.16<br>(.400) |     |    |
| Lead Diameter (L.D.)                        |                | .508<br>(.020)                   |     |    | .508<br>(.020)  |     |    | .508<br>(.020)  |     |    | .508<br>(.020)  |    | .508<br>(.020)  |    | .508<br>(.020) |     |    | .508<br>(.020)  |     |    | .635<br>(.025)  |     |    |
| Cap. in.* Industry Preferred Values in Blue |                | WVDC                             |     |    | WVDC            |     |    | WVDC            |     |    | WVDC            |    | WVDC            |    | WVDC           |     |    | WVDC            |     |    | WVDC            |     |    |
| pF                                          |                | 200                              | 100 | 50 | 200             | 100 | 50 | 200             | 100 | 50 | 100             | 50 | 100             | 50 | 200            | 100 | 50 | 200             | 100 | 50 | 200             | 100 | 50 |
| 470                                         | SL.....C471KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 1000                                        | SL155C102KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 1500                                        | SL.....C152KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 2200                                        | SL.....C222KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 3300                                        | SL.....C332KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 4700                                        | SL.....C472KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 6800                                        | SL.....C682KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 10,000                                      | SL215C103KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 15,000                                      | SL.....C153KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 22,000                                      | SL.....C223KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 33,000                                      | SL.....C333KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 47,000                                      | SL.....C473KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 68,000                                      | SL.....C683KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 100,000                                     | SL215C104KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 150,000                                     | SL.....C154KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 220,000                                     | SL215C224KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 330,000                                     | SL.....C334KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 390,000                                     | SL.....C394KAB |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 470,000                                     | SL305C474KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 1.0 uF                                      | SL305C105KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 2.2 uF                                      | SL405C225KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 2.7 uF                                      | SL505C275KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 4.7 uF                                      | SL505C475KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |
| 10.0 uF                                     | SL655C106KAB   |                                  |     |    |                 |     |    |                 |     |    |                 |    |                 |    |                |     |    |                 |     |    |                 |     |    |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

-  = Industry preferred values
-  = Extended range
-  = Extended range with 0.150" thickness maximum



# Radial Leads/SkyCap®/SL Series



## Z5U Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style                                         | SL15           | SL20            | SL21            | SL22            | SL27            | SL30           | SL40            | SL50            |
|---------------------------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| AVX "Insertable"                                  | SL07           | SL29            | SL59            | N/A             | N/A             | SL65           | SL75            | N/A             |
| Width (W)                                         | 3.81<br>(.150) | 5.08<br>(.200)  | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.604<br>(.260) | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500) |
| Height (H)                                        | 3.81<br>(.150) | 5.08<br>(.200)  | 5.08<br>(.200)  | 5.08<br>(.200)  | 6.35<br>(.250)  | 7.62<br>(.300) | 10.16<br>(.400) | 12.70<br>(.500) |
| Thickness (T)                                     | 2.54<br>(.100) | 3.175<br>(.125) | 3.175<br>(.125) | 3.175<br>(.125) | 4.06<br>(.160)  | 3.81<br>(.150) | 3.81<br>(.150)  | 5.08<br>(.200)  |
| Lead Spacing (L.S.)                               | 2.54<br>(.100) | 2.54<br>(.100)  | 5.08<br>(.200)  | 6.35<br>(.250)  | 7.62<br>(.300)  | 5.08<br>(.200) | 5.08<br>(.200)  | 10.16<br>(.400) |
| Lead Diameter (L.D.)                              | .508<br>(.020) | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020)  | .508<br>(.020) | .508<br>(.020)  | .635<br>(.025)  |
| Cap. in.* Industry Preferred<br>pF Values in Blue | WVDC<br>100 50 | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50  | WVDC<br>100 50 | WVDC<br>100 50  | WVDC<br>100 50  |
| 10,000 SL155E103ZAB                               |                |                 |                 |                 |                 |                |                 |                 |
| 47,000 SL.....E473ZAB                             |                |                 |                 |                 |                 |                |                 |                 |
| 100,000 SL215E104ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 150,000 SL.....E154ZAB                            |                |                 |                 |                 |                 |                |                 |                 |
| 220,000 SL215E224ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 330,000 SL215E334ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 470,000 SL215E474ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 680,000 SL.....E684ZAB                            |                |                 |                 |                 |                 |                |                 |                 |
| 1.0 µF SL.....105ZAB                              |                |                 |                 |                 |                 |                |                 |                 |
| 1.5 µF SL30E155ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 2.2 µF SL30E225ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 3.3 µF SL30E335ZAB                                |                |                 |                 |                 |                 |                |                 |                 |
| 4.7 µF SL30E475ZAB                                |                |                 |                 |                 |                 |                |                 |                 |

For other styles, voltages, tolerances and lead lengths see Part No. Codes or contact factory.

\*Other capacitance values available upon special request.

|                                                                                     |                             |
|-------------------------------------------------------------------------------------|-----------------------------|
|  | = Industry preferred values |
|  | = SL20 only                 |

### AVX 500 VOLT SKYCAPS\*\*

| STYLE* | MAXIMUM CAPACITANCE VALUE |         |
|--------|---------------------------|---------|
|        | C0G (NP0)                 | X7R     |
| SL29   | 900 pF                    | .015 µF |
| SL20   | 1800 pF                   | .033 µF |
| SL28   | 900 pF                    | .015 µF |
| SL59   | 900 pF                    | .015 µF |
| SL13   | 1800 pF                   | .033 µF |
| SL21   | 1800 pF                   | .033 µF |
| SL30   | 7200 pF                   | .12 µF  |
| SL61   | 7200 pF                   | .12 µF  |
| SL65   | 7200 pF                   | .12 µF  |
| SL40   | .015 µF                   | .27 µF  |
| SL75   | .015 µF                   | .27 µF  |
| SL22   | 1800 pF                   | .033 µF |
| SL27   | 1800 pF                   | .033 µF |
| SL76   | .015 µF                   | .27 µF  |
| SL50   | .036 µF                   | .59 µF  |

\*Consult pages 27 and 28 for style sizes.

\*\*Voltage rating based on DWW of 150% of rated voltage.





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.