## GENERAL INFORMATION

**AVX SR 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:** RoHS Compliant, 100% Tin

Drawings are for illustrative purposes only.
Actual lead form shape could vary within stated tolerances based on body size.

## HOW TO ORDER

| SR21 | 5 | E | 104 | M | A | R | TR1 |
|---|---|---|---|---|---|---|---|
| **AVX Style** | **Voltage** | **Temperature Coefficient** | **Capacitance** | **Capacitance Tolerance** | **Failure Rate** | **Leads** | **Packaging** |
| SR15<br>SR20<br>SR21<br>SR22<br>SR27<br>SR30<br>SR40<br>SR50 | 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 = ±.25pF<br>D = ±.5pF<br>F = ±1% (>50pF only)<br>G = ±2% (>25pF only)<br>J = ±5%<br>K = ±10%<br>X7R:<br>J = ±5%<br>K = ±10%<br>M = ±20%<br>Z5U:<br>M = ±20%<br>Z = +80% -20% | A = Not Applicable | R = RoHS | Blank: Bulk Packaging 1.0" minimum of lead length<br>T: Trimmed leads .230" ± .030" Bulk packaging<br>TR1: Tape and Reel Packaging<br>AP1: Ammopack packaging<br><br>See packaging specification pages 33-34 |

RoHS COMPLIANT

## MARKING

FRONT

BACK

## PACKAGING REQUIREMENTS

| | Quantity per Bag |
|---|---|
| SR15, 20, 21, 22, 27, 30 | 1000 Pieces |
| SR40, 50 | 500 Pieces |

Note: SR15, SR20, SR21, SR30, and SR40 available on tape and reel per EIA specifications RS-468. See Pages 33 and 34.




The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

## SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style | SR15 | SR20 | SR21 | SR22 | SR27 | SR30 | SR40 | SR50 |
|---|---|---|---|---|---|---|---|---|
| AVX "Insertable" | SR07 | SR29 | SR59 | N/A | N/A | SR65 | SR75 | N/A |
| Width (W) | 3.81 (.150) | 5.08 (.200) | 5.08 (.200) | 5.08 (.200) | 6.604 (.260) | 7.62 (.300) | 10.16 (.400) | 12.70 (.500) |
| Height (H) | 3.81 (.150) | 5.08 (.200) | 5.08 (.200) | 5.08 (.200) | 6.35 (.250) | 7.62 (.300) | 10.16 (.400) | 12.70 (.500) |
| Thickness (T) | 2.54 (.100) | 3.175 (.125) | 3.175 (.125) | 3.175 (.125) | 4.06 (.160) | 3.81 (.150) | 3.81 (.150) | 5.08 (.200) |
| Lead Spacing (L.S.) | 2.54 (.100) | 2.54 (.100) | 5.08 (.200) | 6.35 (.250) | 7.62 (.300) | 5.08 (.200) | 5.08 (.200) | 10.16 (.400) |
| Lead Diameter (L.D.) | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) | .508 (.020) | .635 (.025) |

| Cap. in.* pF | Industry Preferred Values in Blue | SR15 WVDC 200 | SR15 WVDC 100 | SR15 WVDC 50 | SR20 WVDC 200 | SR20 WVDC 100 | SR20 WVDC 50 | SR21 WVDC 200 | SR21 WVDC 100 | SR21 WVDC 50 | SR22 WVDC 200 | SR22 WVDC 100 | SR22 WVDC 50 | SR27 WVDC 200 | SR27 WVDC 100 | SR27 WVDC 50 | SR30 WVDC 100 | SR30 WVDC 50 | SR40 WVDC 100 | SR40 WVDC 50 | SR50 WVDC 100 | SR50 WVDC 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0-9.9 | SR151A1R0DAR | | | | | | | | | | | | | | | | | | | | | |
| 10 | **SR151A100KAR** | | | | | | | | | | | | | | | | | | | | | |
| 15 | SR____A150KAR | | | | | | | | | | | | | | | | | | | | | |
| 22 | SR____A220KAR | | | | | | | | | | | | | | | | | | | | | |
| 33 | SR____A330KAR | | | | | | | | | | | | | | | | | | | | | |
| 39 | SR____A390KAR | | | | | | | | | | | | | | | | | | | | | |
| 47 | SR____A470KAR | | | | | | | | | | | | | | | | | | | | | |
| 68 | SR____A680KAR | | | | | | | | | | | | | | | | | | | | | |
| 100 | **SR151A101KAR** | | | | | | | | | | | | | | | | | | | | | |
| 150 | SR____A151KAR | | | | | | | | | | | | | | | | | | | | | |
| 220 | SR____A221KAR | | | | | | | | | | | | | | | | | | | | | |
| 330 | SR____A331KAR | | | | | | | | | | | | | | | | | | | | | |
| 390 | SR____A391KAR | | | | | | | | | | | | | | | | | | | | | |
| 470 | SR____A471KAR | | | | | | | | | | | | | | | | | | | | | |
| 680 | SR____A681KAR | | | | | | | | | | | | | | | | | | | | | |
| 1000 | **SR211A102KAR** | | | | | | | | | | | | | | | | | | | | | |
| 1500 | SR____A152KAR | | | | | | | | | | | | | | | | | | | | | |
| 2200 | SR____A222KAR | | | | | | | | | | | | | | | | | | | | | |
| 3900 | SR____A392KAR | | | | | | | | | | | | | | | | | | | | | |
| 4700 | SR____A472KAR | | | | | | | | | | | | | | | | | | | | | |
| 6800 | SR____A682KAR | | | | | | | | | | | | | | | | | | | | | |
| 8200 | SR____A822KAR | | | | | | | | | | | | | | | | | | | | | |
| 10,000 | SR____A103KAR | | | | | | | | | | | | | | | | | | | | | |
| 15,000 | SR____A153KAR | | | | | | | | | | | | | | | | | | | | | |
| 22,000 | SR____A223KAR | | | | | | | | | | | | | | | | | | | | | |
| 33,000 | SR____A333KAR | | | | | | | | | | | | | | | | | | | | | |
| 39,000 | SR____A393KAR | | | | | | | | | | | | | | | | | | | | | |
| 47,000 | SR____A473KAR | | | | | | | | | | | | | | | | | | | | | |
| 68,000 | SR____A683KAR | | | | | | | | | | | | | | | | | | | | | |
| 100,000 | SR____A104KAR | | | | | | | | | | | | | | | | | | | | | |

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**

**= SR20 only**

Capacitance ranges available for SR12 and SR07 same as SR15
SR62 and SR59 same as SR21
SR64 and SR65 same as SR30
SR75 same as SR40
SR13 same as SR21

**NOTE:** For others voltages, tolerances, electrical specifications and NPO typical characteristics, see the AVX Multilayer Ceramic Leaded Capacitors Catalog.

## SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| | AVX Style | SR15 | | | SR20 | | | SR21 | | | SR22 | | | SR27 | | | SR30 | | | SR40 | | | SR50 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AVX "Insertable" | SR07 | | | SR29 | | | SR59 | | | N/A | | | N/A | | | SR65 | | | SR75 | | | N/A | | |
| | Width (W) | 3.81 (.150) | | | 5.08 (.200) | | | 5.08 (.200) | | | 5.08 (.200) | | | 6.604 (.260) | | | 7.62 (.300) | | | 10.16 (.400) | | | 12.70 (.500) | | |
| | Height (H) | 3.81 (.150) | | | 5.08 (.200) | | | 5.08 (.200) | | | 5.08 (.200) | | | 6.35 (.250) | | | 7.62 (.300) | | | 10.16 (.400) | | | 12.70 (.500) | | |
| | Thickness (T) | 2.54 (.100) | | | 3.175 (.125) | | | 3.175 (.125) | | | 3.175 (.125) | | | 4.06 (.160) | | | 3.81 (.150) | | | 3.81 (.150) | | | 5.08 (.200) | | |
| | Lead Spacing (L.S.) | 2.54 (.100) | | | 2.54 (.100) | | | 5.08 (.200) | | | 6.35 (.250) | | | 7.62 (.300) | | | 5.08 (.200) | | | 5.08 (.200) | | | 10.16 (.400) | | |
| | Lead Diameter (L.D.) | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | | .508 (.020) | | | .635 (.025) | | |
| Cap. in.* | Industry Preferred | WVDC | | | WVDC | | | WVDC | | | WVDC | | | WVDC | | | WVDC | | | WVDC | | | WVDC | | |
| pF | Values in Blue | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 | 200 | 100 | 50 |
| 470 | SR____C471KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| **1000** | **SR155C102KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| 1500 | SR____C152KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 2200 | SR____C222KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 3300 | SR____C332KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 4700 | SR____C472KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 6800 | SR____C682KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| **10,000** | **SR215C103KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| 15,000 | SR____C153KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 22,000 | SR____C223KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 33,000 | SR____C333KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 47,000 | SR____C473KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 68,000 | SR____C683KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| **100,000** | **SR215C104KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| 150,000 | SR____C154KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| **220,000** | **SR215C224KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| 330,000 | SR____C334KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 390,000 | SR____C394KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| **470,000** | **SR305C474KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| **1.0 uF** | **SR305C105KAR** | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 uF | SR405C225KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.7 uF | SR505C275KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7 uF | SR505C475KAR | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.0 uF | SR655C106KAR | | | | | | | | | | | | | | | | | | | | | | | | |

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**




The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

## SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic

Dimensions: Millimeters (Inches)

| AVX Style | SR15 | | SR20 | | SR21 | | SR22 | | SR27 | | SR30 | | SR40 | | SR50 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AVX "Insertable" | SR07 | | SR29 | | SR59 | | N/A | | N/A | | SR65 | | SR75 | | N/A | |
| Width (W) | 3.81 (.150) | | 5.08 (.200) | | 5.08 (.200) | | 5.08 (.200) | | 6.604 (.260) | | 7.62 (.300) | | 10.16 (.400) | | 12.70 (.500) | |
| Height (H) | 3.81 (.150) | | 5.08 (.200) | | 5.08 (.200) | | 5.08 (.200) | | 6.35 (.250) | | 7.62 (.300) | | 10.16 (.400) | | 12.70 (.500) | |
| Thickness (T) | 2.54 (.100) | | 3.175 (.125) | | 3.175 (.125) | | 3.175 (.125) | | 4.06 (.160) | | 3.81 (.150) | | 3.81 (.150) | | 5.08 (.200) | |
| Lead Spacing (L.S.) | 2.54 (.100) | | 2.54 (.100) | | 5.08 (.200) | | 6.35 (.250) | | 7.62 (.300) | | 5.08 (.200) | | 5.08 (.200) | | 10.16 (.400) | |
| Lead Diameter (L.D.) | .508 (.020) | | .508 (.020) | | .508 (.020) | | .508 (.020) | | .508 (.020) | | .508 (.020) | | .508 (.020) | | .635 (.025) | |
| Cap. in.* pF / Industry Preferred Values in Blue | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 | WVDC 100 | WVDC 50 |
| **10,000 SR155E103ZAR** | | | | | | | | | | | | | | | | |
| 47,000 SR_____E473ZAR | | | | | | | | | | | | | | | | |
| **100,000 SR215E104ZAR** | | | | | | | | | | | | | | | | |
| 150,000 SR_____E154ZAR | | | | | | | | | | | | | | | | |
| **220,000 SR215E224ZAR** | | | | | | | | | | | | | | | | |
| **330,000 SR215E334ZAR** | | | | | | | | | | | | | | | | |
| **470,000 SR215E474ZAR** | | | | | | | | | | | | | | | | |
| 680,000 SR_____E684ZAR | | | | | | | | | | | | | | | | |
| **1.0 µF SR_____105ZAR** | | | | | | | | | | | | | | | | |
| 1.5 µF SR30E155ZAR | | | | | | | | | | | | | | | | |
| 2.2 µF SR30E225ZAR | | | | | | | | | | | | | | | | |
| 3.3 µF SR30E335ZAR | | | | | | | | | | | | | | | | |
| 4.7 µF SR30E475ZAR | | | | | | | | | | | | | | | | |

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**

**= SR20 only**

Capacitance ranges available for SR12 and SR07 same as SR15
SR62 and SR59 same as SR21
SR64 and SR65 same as SR30
SR75 same as SR40
SR13 same as SR21

**NOTE:** For others voltages, tolerances, electrical specifications and NPO typical characteristics, see the AVX Multilayer Ceramic Leaded Capacitors Catalog.

## AVX 500 VOLT SKYCAPS**

| STYLE* | MAXIMUM CAPACITANCE VALUE C0G (NP0) | MAXIMUM CAPACITANCE VALUE X7R |
|---|---|---|
| SR29 | 900 pF | .015 µF |
| SR20 | 1800 pF | .033 µF |
| SR28<br>SR59 | 900 pF | .015 µF |
| SR13<br>SR21 | 1800 pF | .033 µF |
| SR30<br>SR61<br>SR65 | 7200 pF | .12 µF |
| SR40<br>SR75 | .015 µF | .27 µF |
| SR22 | 1800 pF | .033 µF |
| SR27 | 1800 pF | .033 µF |
| SR76 | .015 µF | .27 µF |

*Consult pages 27 and 28 for style sizes.

**Voltage rating based on DWV of 150% of rated voltage.

# OCEAN CHIPS
## Океан Электроники
### Поставка электронных компонентов

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения **«JONHON»**, а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов **«FORSTAR»**.

AVIC JONHON

**«JONHON»** (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

**«FORSTAR»** (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

FORSTAR®

Телефон: 8 (812) 309-75-97 (многоканальный)
Факс: 8 (812) 320-03-32
Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А