

SMPS Molded Radial MLC Capacitors



SXP Style for High Temperature Applications up to 200°C



SXP-style, encapsulated radial leaded MLC capacitors are ideally suited for high temperature applications up to 200°C. This product is intended for downhole oil exploration, including logging while drilling, geophysical probes, as well as space, aerospace and hybrid automotive applications. This product supplements the SMX family of capacitors and offers mechanical protection to the ceramic element in extreme harsh environment. The high temperature solder utilized in the construction of SXP-style parts assures reliable operation in high temperature and rugged environments. The SXP-style capacitors are ideally suited for applications as DC filters in high power, high frequency motor drives, high pulsed-current circuitry, as well as standard electronic equipment designed for high temperature applications.

SXP-style, switch mode power supply capacitors are characterized with excellent performance. The main benefits of SXP product include:

- Low ESR, low ESL
- Low DC leakage
- Excellent high frequency performance

Not RoHS Compliant

HOW TO ORDER

| | | | | | | | |
|------------------|-------------------------------------|--|--|---|--|-----------------------------------|--|
| SXP | 3 | 1 | C | 104 | M | A | A |
| AVX Style | Size See Dimensions chart | Voltage Code 50V = 5 100V = 1 200V = 2 500V = 7 1000V = A 1500V = S 2000V = G 3000V = H | Temperature Coefficient COG = A VHT = C | Capacitance Code (2 significant digits + number of zeros) 100 pF = 101 22,000 pF = 223 1µF = 105 | Capacitance Tolerance COG: J = ±5% K = ±10% M = ±20% X7R: J = ±5% K = ±10% M = ±20% Z = +80%, -20% | Test Level A = Standard | Leads A = Standard Sn/Pb (min. 5% Pb) |
| | | | | | Tighter tolerances available upon request | | |

ELECTRICAL SPECIFICATIONS

Temperature Coefficient

COG: A Temperature Coefficient 0 ±30 ppm/°C, -55° to +200°C
 VHT: C Temperature Coefficient ±15%, -55°C to +125°C
 +15% - 56%, -55°C to +200°C

Capacitance Test (MIL-STD-202 Method 305)
 25°C, 1.0±0.2 Vrms (open circuit voltage) at 1KHz

Dissipation Factor 25°C

COG: 0.15% Max @ 25°C, 1.0±0.2 Vrms (open circuit voltage) at 1KHz
 X7R/X9U: 2.5% Max @ 25°C, 1.0±0.2 Vrms (open circuit voltage) at 1KHz

Insulation Resistance 25°C

(MIL-STD-202 Method 302)
 100K MΩ or 1000 MΩ-µF, whichever is less.

Insulation Resistance 125°C (MIL-STD-202 Method 302)
 10K MΩ or 100 MΩ-µF, whichever is less.

Insulation Resistance 200°C (MIL-STD-202 Method 302)
 1k MΩ or 10 MΩ -µF, whichever is less.

Dielectric Withstanding Voltage 25°C

(Flash Test)
 250% rated voltage for 5 seconds with 50 mA max charging current. (150% for 500 VDC and 120% for 1000 VDC and higher voltage ratings)



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STYLE



DIMENSIONS

millimeters (inches)

| AVX Style | Length (L) ±0.25 (±0.010) | Height (H) ±0.25 (±0.010) | Thickness (T) ±0.25 (±0.010) | Lead Spacing ±0.76 (±0.030) | LD ±0.05 (±0.002) |
|-----------|------------------------------|------------------------------|---------------------------------|--------------------------------|----------------------|
| SXP1 | 8.9 (0.350) | 8.9 (0.350) | 5.08 (0.200) | 5.08 (0.200) | 0.51 (0.020) |
| SXP2 | 11.4 (0.450) | 11.4 (0.450) | 5.08 (0.200) | 5.08 (0.200) | 0.51 (0.020) |
| SXP3 | 12.7 (0.500) | 12.7 (0.500) | 5.08 (0.200) | 10.2 (0.400) | 0.64 (0.025) |
| SXP4 | 22.4 (0.880) | 16.3 (0.640) | 5.84 (0.230) | 19.8 (0.780) | 0.81 (0.032) |

CAPACITANCE RANGE

COG

| Style | 50V | 100V | 200V | 500V | 1000V | 1500V | 2000V | 3000V |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| SXP1 (MIN) | 1000pF | 1000pF | 1000pF | 100pF | 100pF | 100pF | 100pF | 100pF |
| SXP1 (MAX) | .047μF | .027μF | 8200pF | 4700pF | 2200pF | 1000pF | 560pF | 270pF |
| SXP2 (MIN) | .01μF | 1000pF | 1000pF | 100pF | 100pF | 100pF | 100pF | 100pF |
| SXP2 (MAX) | .10μF | .056μF | .018μF | 8200pF | 4700pF | 1800pF | 1200pF | 560pF |
| SXP3 (MIN) | .01μF | 1000pF | 1000pF | 1000pF | 1000pF | 100pF | 100pF | 100pF |
| SXP3 (MAX) | .15μF | .068μF | .022μF | .012μF | 6800pF | 2700pF | 1500pF | 1000pF |
| SXP4 (MIN) | .01μF | .01μF | 1000pF | 1000pF | 1000pF | 1000pF | 100pF | 100pF |
| SXP4 (MAX) | .39μF | .22μF | .068μF | .033μF | .018μF | 8200pF | 4700pF | 2700pF |

VHT

| Style | 50V | 100V | 200V | 500V | 1000V | 1500V | 2000V | 3000V |
|------------|-------|-------|-------|-------|--------|--------|--------|--------|
| SXP1 (MIN) | .1μF | .01μF | .01μF | .01μF | .01μF | .01μF | 1000pF | 1000pF |
| SXP1 (MAX) | 1.5μF | 1.0μF | .33μF | .12μF | .056μF | .022μF | .012μF | 4700pF |
| SXP2 (MIN) | .1μF | .1μF | .01μF | .01μF | .01μF | .01μF | .01μF | 1000pF |
| SXP2 (MAX) | 2.7μF | 1.8μF | .68μF | .27μF | .10μF | .056μF | .022μF | 8200pF |
| SXP3 (MIN) | .01μF | .1μF | .01μF | .01μF | .01μF | .01μF | .01μF | .01μF |
| SXP3 (MAX) | 3.9μF | 2.7μF | 1.0μF | .33μF | .15μF | .082μF | .033μF | .015μF |
| SXP4 (MIN) | 1μF | .1μF | .1μF | .01μF | .01μF | .01μF | .01μF | .01μF |
| SXP4 (MAX) | 12μF | 8.2μF | 2.7μF | 1.0μF | .47μF | .22μF | .10μF | .039μF |



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

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