



SMTSDR SERIES

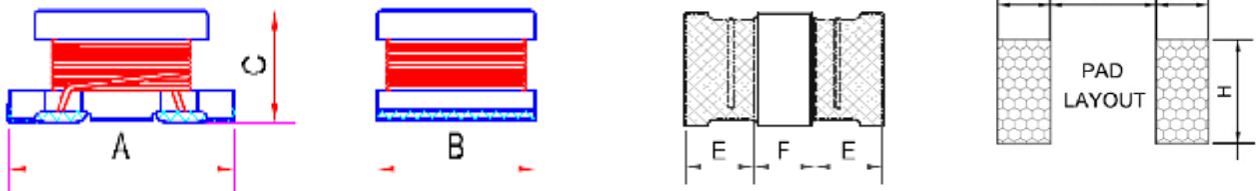
MINIATURE SMD CHIP CHOKE COILS

Applications :

- Pagers, Cordless phone.
- High Freq. Communication Products.
- Personal computers.
- Disk Drives and computer peripherals.
- DC power supply circuits.



Shape and Dimensions (Dimensions are in mm) :



| Item | A | B | C | E Min. | F Min. | H | I | J |
|-----------------|---------|---------|----------|--------|--------|-----|-----|-----|
| SMTSDR322515 | 3.2±0.3 | 2.5±0.2 | 1.55±0.3 | 0.7 | 0.7 | 2.0 | 1.5 | 1.0 |
| SMTSDR321618C | 3.2±0.3 | 1.6±0.2 | 1.8±0.3 | 0.7 | 0.7 | 1.5 | 1.5 | 1.0 |
| SMTSDR322520(C) | 3.2±0.3 | 2.5±0.2 | 2.0±0.3 | 0.7 | 0.7 | 2.0 | 1.5 | 1.0 |
| SMTSDR453226(C) | 4.5±0.3 | 3.2±0.2 | 2.6±0.3 | 1.0 | 1.0 | 3.0 | 2.0 | 1.2 |
| SMTSDR575047C | 5.7±0.3 | 5.0±0.3 | 4.7±0.3 | 1.3 | 1.7 | 5.0 | 2.0 | 2.0 |

Features :

- These miniature chip inductors wound on a special ferrite core.
- SMTSDR322520 / 453226 / 322515 are high Q value at high frequencies and low DC resistance.
- SMTSDR321618C / 322520C / 453226C / 565047C are low DC resistance, high current capacity, and high impedance characteristics. They are excellent for use as choke coil in DC power supply circuits.

Characteristics :

- Rated Current: It is either the inductance is 10% lower than its initial value in DC. saturation characteristics or temperature raise becomes $\Delta T=20^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$), whichever is lower.
- Operating temp. : -30°C to 105°C .

Product identification :

SMT SDR 4 5 3 2 2 6 C - 1 0 1 K
(1) (2) (3) (4) (5)

- (1) Type : **Surface Mounting Type**.
- (2) Style : **SDR** Type core, $L=4.5\text{mm}$ $W=3.2$ $H_t=2.6$.
- (3) **C**: for Choke use, No **C**: for general use.
- (4) Inductance : **101** for **100uH**.
- (5) Inductance tolerance : **J** : $\pm 5\%$; **K** : $\pm 10\%$; **M** : $\pm 20\%$.

Test equipments :

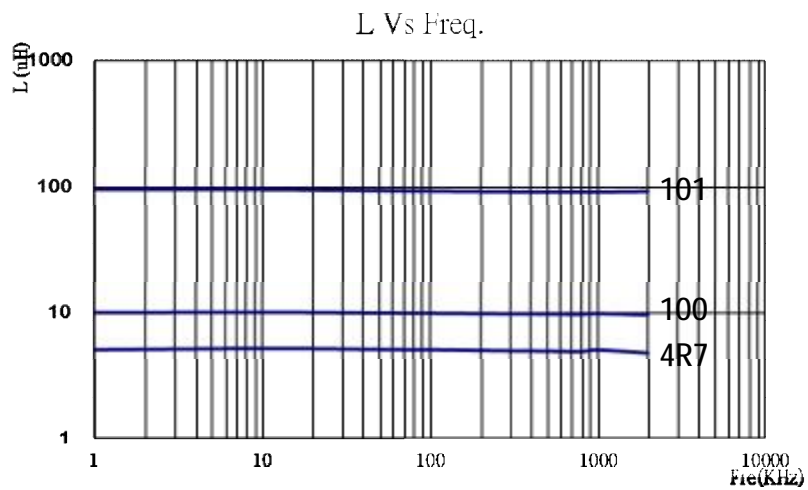
- Inductance measured at 0Adc on HP 4284A LCR meter or equivalent.
- DCR measured on Chroma 16502 micro-ohmmeter or equivalent.
- Electrical specifications at 25°C .



I SMTSDR 322515 series

| Part No. | Inductance L (μ H) | TEST Freq. (0.1V) | DCR (Ω) Max. | Rated Current (mA) Max. | SRF (MHz) Min. |
|-------------------|-------------------------------|-------------------------|-----------------------------|-------------------------------|----------------------|
| SMTSDR322515-1R0M | 1.0 | 1MHz | 0.078 | 1000 | 100 |
| SMTSDR322515-2R2M | 2.2 | 1MHz | 0.126 | 790 | 64 |
| SMTSDR322515-4R7M | 4.7 | 1MHz | 0.195 | 650 | 43 |
| SMTSDR322515-100K | 10 | 1MHz | 0.42 | 400 | 26 |
| SMTSDR322515-150K | 15 | 1MHz | 0.75 | 300 | 22 |
| SMTSDR322515-220K | 22 | 1MHz | 0.92 | 250 | 19 |
| SMTSDR322515-330K | 33 | 1MHz | 1.40 | 200 | 17 |
| SMTSDR322515-470K | 47 | 1MHz | 2.75 | 170 | 13 |
| SMTSDR322515-680K | 68 | 1MHz | 3.60 | 130 | 9 |
| SMTSDR322515-101K | 100 | 1MHz | 4.50 | 100 | 8 |

Typical performance curves :

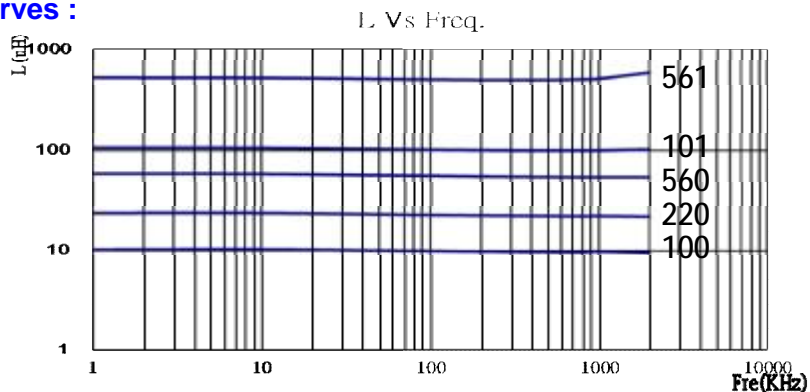




I SMTSDR 322520 series

| Part No. | Inductance (μH) | | | Quality Factor | | DCR (Ω) Max. | SRF (MHz) Min. | Rated Current (mA) Max. |
|--------------------|------------------------------|-----------------------|------------|----------------|------------|--------------------------|-------------------|-------------------------|
| | Nominal Value | Tolerance ($\pm\%$) | Test Freq. | Spec. Min. | Test Freq. | | | |
| SMTSDR322520 -1R0□ | 1.0 | M | 1MHz | 20 | 1MHz | 0.50 | 100 | 445 |
| SMTSDR322520 -1R2□ | 1.2 | M | 1MHz | 20 | 1MHz | 0.60 | 100 | 425 |
| SMTSDR322520 -1R5□ | 1.5 | M,K | 1MHz | 20 | 1MHz | 0.60 | 75 | 400 |
| SMTSDR322520 -1R8□ | 1.8 | M,K | 1MHz | 20 | 1MHz | 0.70 | 60 | 390 |
| SMTSDR322520 -2R2□ | 2.2 | M,K | 1MHz | 20 | 1MHz | 0.80 | 50 | 370 |
| SMTSDR322520 -2R7□ | 2.7 | M,K | 1MHz | 20 | 1MHz | 0.90 | 43 | 320 |
| SMTSDR322520 -3R3□ | 3.3 | M,K | 1MHz | 20 | 1MHz | 1.0 | 38 | 300 |
| SMTSDR322520 -3R9□ | 3.9 | M,K | 1MHz | 20 | 1MHz | 1.1 | 35 | 290 |
| SMTSDR322520 -4R7□ | 4.7 | M,K | 1MHz | 20 | 1MHz | 1.2 | 31 | 270 |
| SMTSDR322520 -5R6□ | 5.6 | M,K | 1MHz | 20 | 1MHz | 1.3 | 28 | 250 |
| SMTSDR322520 -6R8□ | 6.8 | M,K | 1MHz | 20 | 1MHz | 1.5 | 25 | 240 |
| SMTSDR322520 -8R2□ | 8.2 | M,K | 1MHz | 20 | 1MHz | 1.6 | 23 | 225 |
| SMTSDR322520 -100□ | 10 | K,J | 1MHz | 35 | 1MHz | 1.8 | 20 | 190 |
| SMTSDR322520 -120□ | 12 | K,J | 1MHz | 35 | 1MHz | 2.0 | 18 | 180 |
| SMTSDR322520 -150□ | 15 | K,J | 1MHz | 35 | 1MHz | 2.2 | 16 | 170 |
| SMTSDR322520 -180□ | 18 | K,J | 1MHz | 35 | 1MHz | 2.5 | 15 | 165 |
| SMTSDR322520 -220□ | 22 | K,J | 1MHz | 35 | 1MHz | 2.8 | 14 | 150 |
| SMTSDR322520 -270□ | 27 | K,J | 1MHz | 35 | 1MHz | 3.1 | 13 | 125 |
| SMTSDR322520 -330□ | 33 | K,J | 1MHz | 40 | 1MHz | 3.5 | 12 | 115 |
| SMTSDR322520 -390□ | 39 | K,J | 1MHz | 40 | 1MHz | 3.9 | 11 | 110 |
| SMTSDR322520 -470□ | 47 | K,J | 1MHz | 40 | 1MHz | 4.3 | 11 | 100 |
| SMTSDR322520 -560□ | 56 | K,J | 1MHz | 40 | 1MHz | 4.9 | 10.0 | 85 |
| SMTSDR322520 -680□ | 68 | K,J | 1MHz | 40 | 1MHz | 5.5 | 9.0 | 80 |
| SMTSDR322520 -820□ | 82 | K,J | 1MHz | 40 | 1MHz | 6.2 | 8.5 | 70 |
| SMTSDR322520 -101□ | 100 | K,J | 1MHz | 40 | 796kHz | 7.0 | 8.0 | 80 |
| SMTSDR322520 -121□ | 120 | K,J | 1MHz | 40 | 796kHz | 8.0 | 7.5 | 75 |
| SMTSDR322520 -151□ | 150 | K,J | 1MHz | 40 | 796kHz | 9.3 | 7.0 | 70 |
| SMTSDR322520 -181□ | 180 | K,J | 1MHz | 40 | 796kHz | 10.2 | 6.0 | 65 |
| SMTSDR322520 -221□ | 220 | K,J | 1MHz | 40 | 796kHz | 11.8 | 5.5 | 65 |
| SMTSDR322520 -271□ | 270 | K,J | 1MHz | 40 | 796kHz | 12.5 | 5.0 | 65 |
| SMTSDR322520 -331□ | 330 | K,J | 1MHz | 40 | 796kHz | 13.0 | 5.0 | 65 |
| SMTSDR322520 -391□ | 390 | K,J | 1MHz | 50 | 796kHz | 22.0 | 5.0 | 50 |
| SMTSDR322520 -471□ | 470 | K,J | 1kHz | 50 | 796kHz | 25.0 | 5.0 | 45 |
| SMTSDR322520 -561□ | 560 | K,J | 1kHz | 50 | 796kHz | 28.0 | 5.0 (REF.) | 40 |

Typical performance curves :

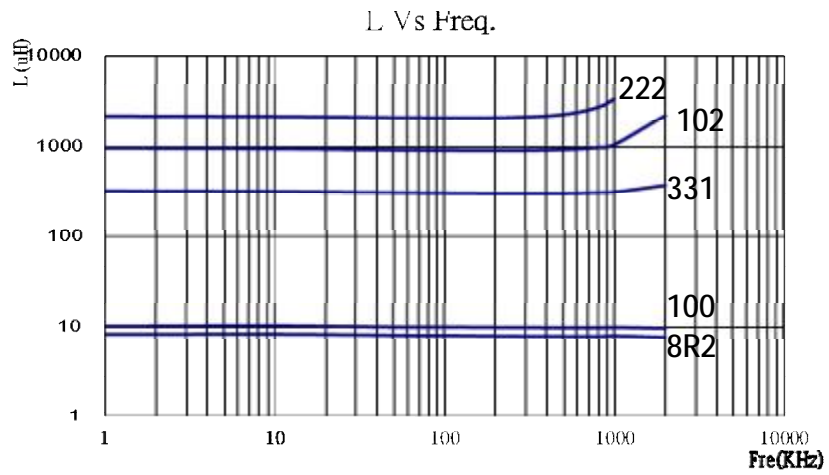



I SMTSDR 453226 series

| Part No. | Inductance(uH) | | | Quality Factor | | DCR (Ω) Max. | SRF (MHz) Min. | Rated Current (mA) Max. |
|--------------------|------------------|-------------------|---------------|----------------|---------------|--------------------|----------------------|-------------------------------|
| | Nominal Value | Tolerance (±%) | Test Freq. | Spec. Min. | Test Freq. | | | |
| SMTSDR453226 -1R0□ | 1.0 | M | 1MHz | 20 | 1MHz | 0.20 | 120 | 500 |
| SMTSDR453226 -1R2□ | 1.2 | M | 1MHz | 20 | 1MHz | 0.20 | 100 | 500 |
| SMTSDR453226 -1R5□ | 1.5 | M | 1MHz | 20 | 1MHz | 0.30 | 85 | 500 |
| SMTSDR453226 -1R8□ | 1.8 | M | 1MHz | 20 | 1MHz | 0.30 | 75 | 500 |
| SMTSDR453226 -2R2□ | 2.2 | M | 1MHz | 20 | 1MHz | 0.30 | 62 | 500 |
| SMTSDR453226 -2R7□ | 2.7 | M | 1MHz | 20 | 1MHz | 0.32 | 53 | 500 |
| SMTSDR453226 -3R3□ | 3.3 | M | 1MHz | 20 | 1MHz | 0.35 | 47 | 500 |
| SMTSDR453226 -3R9□ | 3.9 | M | 1MHz | 20 | 1MHz | 0.38 | 41 | 500 |
| SMTSDR453226 -4R7□ | 4.7 | M,K | 1MHz | 30 | 1MHz | 0.40 | 38 | 500 |
| SMTSDR453226 -5R6□ | 5.6 | M,K | 1MHz | 30 | 1MHz | 0.47 | 33 | 500 |
| SMTSDR453226 -6R8□ | 6.8 | M,K | 1MHz | 30 | 1MHz | 0.50 | 31 | 450 |
| SMTSDR453226 -8R2□ | 8.2 | M,K | 1MHz | 30 | 1MHz | 0.56 | 27 | 450 |
| SMTSDR453226 -100□ | 10 | K,J | 1MHz | 35 | 1MHz | 0.56 | 23 | 400 |
| SMTSDR453226 -120□ | 12 | K,J | 1MHz | 35 | 1MHz | 0.62 | 21 | 380 |
| SMTSDR453226 -150□ | 15 | K,J | 1MHz | 35 | 1MHz | 0.73 | 19 | 360 |
| SMTSDR453226 -180□ | 18 | K,J | 1MHz | 35 | 1MHz | 0.82 | 17 | 340 |
| SMTSDR453226 -220□ | 22 | K,J | 1MHz | 35 | 1MHz | 0.94 | 15 | 320 |
| SMTSDR453226 -270□ | 27 | K,J | 1MHz | 35 | 1MHz | 1.1 | 14 | 300 |
| SMTSDR453226 -330□ | 33 | K,J | 1MHz | 35 | 1MHz | 1.2 | 12 | 270 |
| SMTSDR453226 -390□ | 39 | K,J | 1MHz | 35 | 1MHz | 1.4 | 11 | 240 |
| SMTSDR453226 -470□ | 47 | K,J | 1MHz | 35 | 1MHz | 1.5 | 10 | 220 |
| SMTSDR453226 -560□ | 56 | K,J | 1MHz | 35 | 1MHz | 1.7 | 9.3 | 200 |
| SMTSDR453226 -680□ | 68 | K,J | 1MHz | 35 | 1MHz | 1.9 | 8.4 | 180 |
| SMTSDR453226 -820□ | 82 | K,J | 1MHz | 35 | 1MHz | 2.2 | 7.5 | 170 |
| SMTSDR453226 -101□ | 100 | K,J | 1MHz | 40 | 796kHz | 2.5 | 6.8 | 160 |
| SMTSDR453226 -121□ | 120 | K,J | 1MHz | 40 | 796kHz | 3.0 | 6.2 | 150 |
| SMTSDR453226 -151□ | 150 | K,J | 1MHz | 40 | 796kHz | 3.7 | 5.5 | 130 |
| SMTSDR453226 -181□ | 180 | K,J | 1MHz | 40 | 796kHz | 4.5 | 5.0 | 120 |
| SMTSDR453226 -221□ | 220 | K,J | 1MHz | 40 | 796kHz | 5.4 | 4.5 | 110 |
| SMTSDR453226 -271□ | 270 | K,J | 1MHz | 40 | 796kHz | 6.8 | 4.0 | 100 |
| SMTSDR453226 -331□ | 330 | K,J | 1MHz | 40 | 796kHz | 8.2 | 3.6 | 95 |
| SMTSDR453226 -391□ | 390 | K,J | 1MHz | 40 | 796kHz | 9.7 | 3.3 | 90 |
| SMTSDR453226 -471□ | 470 | K,J | 1kHz | 40 | 796kHz | 11.8 | 3.0 | 80 |
| SMTSDR453226 -561□ | 560 | K,J | 1kHz | 40 | 796kHz | 14.5 | 2.7 | 70 |
| SMTSDR453226 -681□ | 680 | K,J | 1kHz | 40 | 796kHz | 17.0 | 2.5 | 65 |
| SMTSDR453226 -821□ | 820 | K,J | 1kHz | 40 | 796kHz | 20.5 | 2.2 | 60 |
| SMTSDR453226 -102□ | 1000 | K,J | 1kHz | 40 | 252kHz | 25.0 | 2.0 | 55 |
| SMTSDR453226 -122□ | 1200 | K,J | 1kHz | 40 | 252kHz | 30.0 | 1.8 | 50 |
| SMTSDR453226 -152□ | 1500 | K,J | 1kHz | 40 | 252kHz | 37.0 | 1.6 | 45 |
| SMTSDR453226 -182□ | 1800 | K,J | 1kHz | 40 | 252kHz | 45.0 | 1.5 | 35 |
| SMTSDR453226 -222□ | 2200 | K,J | 1kHz | 40 | 252kHz | 50.0 | 1.3 | 30 |



Typical performance curves :




I SMTSDR321618C series

| Part No. | Inductance L (μ H) | Tolerance (\pm %) | Test Freq. (MHz) | DCR (Ω) Max. | SRF (MHz) Min. | Rated Current (mA) Max. |
|---------------------|-------------------------------|-------------------------|------------------------|-----------------------------|----------------------|-------------------------------|
| SMTSDR321618C -R22□ | 0.22 | M | 1MHz | 0.140 | 250 | 850 |
| SMTSDR321618C -R47□ | 0.47 | M | 1MHz | 0.210 | 180 | 700 |
| SMTSDR321618C -1R0□ | 1.0 | M | 1MHz | 0.364 | 100 | 510 |
| SMTSDR321618C -2R2□ | 2.2 | M | 1MHz | 0.533 | 50 | 430 |
| SMTSDR321618C -4R7□ | 4.7 | M,K | 1MHz | 0.845 | 31 | 340 |
| SMTSDR321618C -100□ | 10 | K,J | 1MHz | 1.690 | 20 | 230 |
| SMTSDR321618C -220□ | 22 | K,J | 1MHz | 3.900 | 14 | 160 |
| SMTSDR321618C -470□ | 47 | K,J | 1MHz | 10.40 | 10 | 100 |
| SMTSDR321618C -101□ | 100 | K,J | 1MHz | 15.60 | 7 | 80 |
| SMTSDR322520C -1R0□ | 1.0 | M | 1MHz | 0.078 | 100 | 1000 |
| SMTSDR322520C -2R2□ | 2.2 | M | 1MHz | 0.126 | 64 | 790 |
| SMTSDR322520C -4R7□ | 4.7 | M | 1MHz | 0.195 | 43 | 450 |
| SMTSDR322520C -100□ | 10 | M | 1MHz | 0.572 | 26 | 300 |
| SMTSDR322520C -220□ | 22 | M,K | 1MHz | 0.923 | 19 | 250 |
| SMTSDR322520C -470□ | 47 | M,K | 1MHz | 1.69 | 12 | 170 |
| SMTSDR322520C -101□ | 100 | K,J | 1MHz | 4.55 | 8 | 100 |
| SMTSDR322520C -221□ | 220 | K,J | 1MHz | 10.92 | 5.5 | 70 |
| SMTSDR322520C -331□ | 330 | K,J | 1MHz | 13.00 | 4.5 | 60 |
| SMTSDR322520C -391□ | 390 | K,J | 1MHz | 22.10 | 4 | 60 |
| SMTSDR322520C -471□ | 470 | K,J | 1MHz | 24.70 | 3.7 | 60 |
| SMTSDR322520C -561□ | 560 | K,J | 1MHz | 28.60 | 3.4 | 60 |
| SMTSDR453226C -1R0□ | 1.0 | M | 1MHz | 0.08 | 100 | 1080 |
| SMTSDR453226C -1R5□ | 1.5 | M | 1MHz | 0.09 | 85 | 1000 |
| SMTSDR453226C -2R2□ | 2.2 | M | 1MHz | 0.11 | 60 | 900 |
| SMTSDR453226C -3R3□ | 3.3 | M | 1MHz | 0.13 | 47 | 800 |
| SMTSDR453226C -4R7□ | 4.7 | M,K | 1MHz | 0.15 | 35 | 750 |
| SMTSDR453226C -6R8□ | 6.8 | M,K | 1MHz | 0.20 | 30 | 720 |
| SMTSDR453226C -100□ | 10 | K,J | 1MHz | 0.24 | 23 | 650 |
| SMTSDR453226C -150□ | 15 | K,J | 1MHz | 0.32 | 20 | 570 |
| SMTSDR453226C -220□ | 22 | K,J | 1MHz | 0.60 | 15 | 420 |
| SMTSDR453226C -330□ | 33 | K,J | 1MHz | 1.0 | 12 | 310 |
| SMTSDR453226C -470□ | 47 | K,J | 1MHz | 1.1 | 10 | 280 |
| SMTSDR453226C -680□ | 68 | K,J | 1MHz | 1.7 | 8.4 | 220 |
| SMTSDR453226C -101□ | 100 | K,J | 1MHz | 2.2 | 6.8 | 190 |
| SMTSDR453226C -151□ | 150 | K,J | 1MHz | 3.5 | 5.5 | 130 |
| SMTSDR453226C -221□ | 220 | K,J | 1MHz | 4.0 | 4.5 | 110 |
| SMTSDR453226C -331□ | 330 | K,J | 1MHz | 6.8 | 3.6 | 100 |
| SMTSDR453226C -471□ | 470 | K,J | 1MHz | 8.5 | 3.0 | 90 |


I SMTSDR575047C series

| Part No. | Inductance L (μ H) | Tolerance (\pm %) | Test Freq. (MHz) | DCR (Ω) Max. | SRF (MHz) Min. | Rated Current (mA) Max. |
|---------------------|-------------------------------|-------------------------|------------------------|-----------------------------|----------------------|-------------------------------|
| SMTSDR575047C -R12□ | 0.12 | M | 1MHz | 0.0098 | 450 | 6000 |
| SMTSDR575047C -R27□ | 0.27 | M | 1MHz | 0.0140 | 300 | 5300 |
| SMTSDR575047C -R47□ | 0.47 | M | 1MHz | 0.0182 | 200 | 4800 |
| SMTSDR575047C -1R0□ | 1.0 | M | 1MHz | 0.0270 | 150 | 4000 |
| SMTSDR575047C -1R5□ | 1.5 | M | 1MHz | 0.0310 | 110 | 3700 |
| SMTSDR575047C -2R2□ | 2.2 | M | 1MHz | 0.0410 | 80 | 3200 |
| SMTSDR575047C -3R3□ | 3.3 | M | 1MHz | 0.0500 | 40 | 2900 |
| SMTSDR575047C -4R7□ | 4.7 | M | 1MHz | 0.0574 | 30 | 2700 |
| SMTSDR575047C -6R8□ | 6.8 | M | 1MHz | 0.1040 | 25 | 2000 |
| SMTSDR575047C -100□ | 10 | M,K | 1MHz | 0.1300 | 20 | 1700 |
| SMTSDR575047C -150□ | 15 | M,K | 1MHz | 0.210 | 17 | 1400 |
| SMTSDR575047C -220□ | 22 | M,K | 1MHz | 0.266 | 15 | 1200 |
| SMTSDR575047C -330□ | 33 | M,K | 1MHz | 0.448 | 12 | 900 |
| SMTSDR575047C -470□ | 47 | M,K | 1MHz | 0.560 | 10(REF.) | 800 |
| SMTSDR575047C -680□ | 68 | M,K | 1MHz | 0.938 | 7.6 | 640 |
| SMTSDR575047C -101□ | 100 | M,K | 100kHz | 1.204 | 6.5(REF.) | 560 |
| SMTSDR575047C -151□ | 150 | M,K | 100kHz | 2.660 | 5.0(REF.) | 420 |
| SMTSDR575047C -221□ | 220 | M,K | 100kHz | 3.360 | 4.0 | 320 |
| SMTSDR575047C -331□ | 330 | M,K | 100kHz | 6.160 | 3.1 | 270 |
| SMTSDR575047C -471□ | 470 | M,K | 100kHz | 7.560 | 2.4 | 240 |
| SMTSDR575047C -681□ | 680 | M,K | 100kHz | 11.34 | 1.9 | 190 |
| SMTSDR575047C -102□ | 1000 | M,K | 10kHz | 14.42 | 1.7 | 150 |
| SMTSDR575047C -222□ | 2200 | M,K | 10kHz | 30.10 | 1.2 | 100 |
| SMTSDR575047C -472□ | 4700 | M,K | 10kHz | 61.04 | 0.8 | 70 |
| SMTSDR575047C -103□ | 10000 | M,K | 10kHz | 140.0 | 0.5 | 50 |

* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.