

SMD Power Inductors - SESI 15WR High Reliability Applications



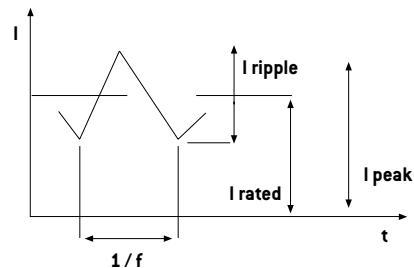
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, D0-160
- ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight : 5 grams
- Shielded version upon request

Electrical Data (25°C)

ID Code	L ¹ no load μH	I ^{2,4} rated A	L ³ at rated I μH	I ^{4,5} peak max A	R _{dc} at 25°C mΩ Max	Tol.
SESI 15 1K5 2WR	1.5	14	0.9	19	5.0	30
SESI 15 1K8 1WR	1.8	10	1.05	14	5.0	
SESI 15 2K7 1WR	2.7	8.2	1.9	11.5	6.5	
SESI 15 4K9 1WR	4.9	6.0	3.4	8.5	11	20
SESI 15 6K4 1WR	6.4	5.3	4.5	7.5	12	
SESI 15 8K0 1WR	8.0	4.8	5.6	6.5	16	
SESI 15 12K 1WR	12	4.0	8.4	5.5	23	
SESI 15 16K 1WR	16	3.4	11.2	4.5	27	
SESI 15 18K 1WR	18	3.1	12.6	4.2	29	
SESI 15 21K 1WR	21	2.9	14.7	4.0	36	10
SESI 15 27K 1WR	27	2.6	18.9	3.5	44	
SESI 15 29K 2WR	30	2.6	20	3.5	72	
SESI 15 33K 1WR	33	2.3	23	3.2	59	
SESI 15 48K 1WR	48	1.9	33	2.7	72	
SESI 15 56K 1WR	56	1.8	39	2.5	82	
SESI 15 68K 1WR	68	1.6	47	2.2	110	
SESI 15 82K 1WR	82	1.5	57	2.1	120	
SESI 15 M10 1WR	100	1.35	70	1.9	155	
SESI 15 M12 1WR	120	1.2	84	1.7	180	
SESI 15 M15 1WR	150	1.1	105	1.5	230	
SESI 15 M22 1WR	220	0.9	154	1.3	355	
SESI 15 M33 1WR	330	0.74	231	1.0	630	
SESI 15 1M0 1WR	1000	0.38	800	0.5	2127.5	
SESI 15 2M3 1WR	2290	0.28	1900	0.36	4400	

Notes

- Inductance at 0.25 V, 100 kHz
- I rated (permanent DC) without heatsink ;
with heatsink I = I rated x 1.4
- Typical inductance value at recommended full load
- I peak max = maximum peak value of current at +125 °C; L value not guaranteed
- 40 % admissible I ripple over I rated at f = 200 kHz
- Isolation voltage 500 Vdc
- 1 min - Ri > 1 GΩ between winding and magnetic core

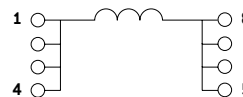


To Order

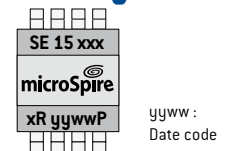
SESI	15	###	-	W	R
SMD Energy Storage Inductor	Size	Value code 4K9 = 4,9 μH M10 = 100 μH 1M0 = 1000 μH	Version	GW Terminals	High reliability

SESI 15 ### #WR

Connections

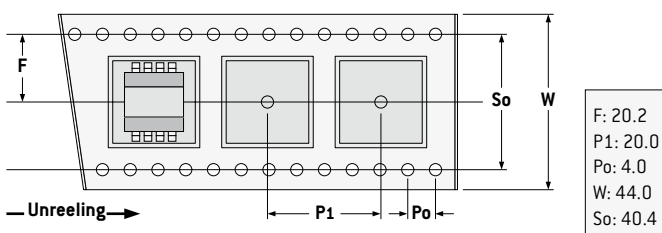


Marking

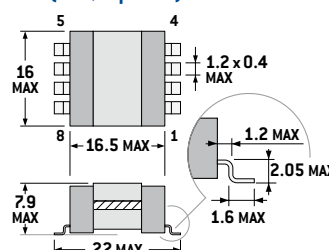


Packaging

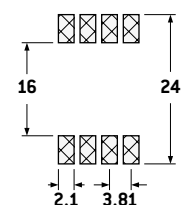
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions (mm, top view)



PCB Layout (suggested)



SMD Power Inductors SESIxx

• esa QPL Components

SESI series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI series fulfilling ESA ESCC Generic specification N° 3201 and detail specification N° 3201/009.

This qualification approval includes final production tests Chart II, burn-in and electrical measurements to testing level B Chart III and qualification testing Chart IV.

For procurement, different quality levels are offered :

- Final production tests Chart II
- Burn-in and electrical measurements Chart III with level B or C (as required)
- Lot acceptance testing Chart V if required

Components delivered through this specification need to be processed and inspected in accordance with the Microspire Process Identification Document (P.I.D.).

Each component delivered is traceable to its production lot.

The finish will be Sn60Pb40.

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 9.1 1K0 1WR	3201009 05 x 1L0 N
SESI 9.1 1K5 1WR	3201009 05 x 1L5 N
SESI 9.1 2K0 2WR	3201009 05 x 2L0 N
SESI 9.1 2K6 2WR	3201009 05 x 2L6 M
SESI 9.1 3K4 2WR	3201009 05 x 3L4 M
SESI 9.1 4K3 2WR	3201009 05 x 4L3 M
SESI 9.1 6K2 2WR	3201009 05 x 6L2 M
SESI 9.1 8K5 2WR	3201009 05 x 8L5 M
SESI 9.1 10K 2WR	3201009 05 x 100 M
SESI 9.1 15K 2WR	3201009 05 x 150 M
SESI 9.1 18K 2WR	3201009 05 x 180 M
SESI 9.1 22K 2WR	3201009 05 x 220 M
SESI 9.1 26K 2WR	3201009 05 x 260 M
SESI 9.1 33K 2WR	3201009 05 x 330 K
SESI 9.1 47K 2WR	3201009 05 x 470 K
SESI 9.1 66K 2WR	3201009 05 x 660 K
SESI 9.1 81K 2WR	3201009 05 x 810 K
SESI 9.1 M10 2WR	3201009 05 x 101 K
SESI 9.1 M15 1WR	3201009 05 x 151 K
SESI 9.1 M22 1WR	3201009 05 x 221 K
SESI 9.1 M33 1WR	3201009 05 x 331 K
SESI 9.1 M47 1WR	3201009 05 x 471 K
SESI 9.1 M68 1WR	3201009 05 x 681 K
SESI 9.1 M10 1WR	3201009 05 x 102 K
3201009 05 x ### y	

x = B for Chart III level B
x = C for Chart III level C

Tolerance :
y = N for ±30%
y = M for ±20%
y = K for ±10%

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 14 3K3 1SR	3201009 01 x 3L3 M
SESI 14 4K7 1SR	3201009 01 x 4L7 M
SESI 14 6K0 1SR	3201009 01 x 6L0 M
SESI 14 8K2 1SR	3201009 01 x 8L2 M
SESI 14 10K 1SR	3201009 01 x 100 M
SESI 14 15K 1SR	3201009 01 x 150 M
SESI 14 22K 1SR	3201009 01 x 220 M
SESI 14 33K 1SR	3201009 01 x 330 M
SESI 14 47K 1SR	3201009 01 x 470 K
SESI 14 56K 1SR	3201009 01 x 560 K
SESI 14 68K 1SR	3201009 01 x 680 K
SESI 14 82K 1SR	3201009 01 x 820 K
SESI 14 M10 1SR	3201009 01 x 101 K
SESI 14 M12 1SR	3201009 01 x 121 K
SESI 14 M15 1SR	3201009 01 x 151 K
SESI 14 M18 1SR	3201009 01 x 181 K
SESI 14 M22 1SR	3201009 01 x 221 K
SESI 14 M33 1SR	3201009 01 x 331 K
3201009 01 x ### y	

x = B for Chart III level B
x = C for Chart III level C

Tolerance :
y = M for ±20%
y = K for ±10%



SMD Power Inductors SESIxx

QPL Components

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 15 1K5 2SR	3201009 02 x 1L5 N
SESI 15 1K8 1SR	3201009 02 x 1L8 N
SESI 15 2K7 1SR	3201009 02 x 2L7 M
SESI 15 4K9 1SR	3201009 02 x 4L9 M
SESI 15 6K4 1SR	3201009 02 x 6L4 M
SESI 15 8K0 1SR	3201009 02 x 8L0 M
SESI 15 12K 1SR	3201009 02 x 120 M
SESI 15 16K 1SR	3201009 02 x 160 M
SESI 15 18K 1SR	3201009 02 x 180 M
SESI 15 21K 1SR	3201009 02 x 210 M
SESI 15 27K 1SR	3201009 02 x 270 M
SESI 15 33K 1SR	3201009 02 x 330 M
SESI 15 48K 1SR	3201009 02 x 480 K
SESI 15 56K 1SR	3201009 02 x 560 K
SESI 15 68K 1SR	3201009 02 x 680 K
SESI 15 82K 1SR	3201009 02 x 820 K
SESI 15 M10 1SR	3201009 02 x 101 K
SESI 15 M12 1SR	3201009 02 x 121 K
SESI 15 M15 1SR	3201009 02 x 151 K
SESI 15 M22 1SR	3201009 02 x 221 K
SESI 15 M33 1SR	3201009 02 x 331 K
SESI 15 1M0 1SR	3201009 02 x 102 K
SESI 15 2M3 1SR	3201009 02 x 232 K
3201009 02 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = N for ±30% y = M for ±20% y = K for ±10%

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 15 1K5 2WR	3201009 03 x 1L5 N
SESI 15 1K8 1WR	3201009 03 x 1L8 N
SESI 15 2K7 1WR	3201009 03 x 2L7 M
SESI 15 4K9 1WR	3201009 03 x 4L9 M
SESI 15 6K4 1WR	3201009 03 x 6L4 M
SESI 15 8K0 1WR	3201009 03 x 8L0 M
SESI 15 12K 1WR	3201009 03 x 120 M
SESI 15 16K 1WR	3201009 03 x 160 M
SESI 15 18K 1WR	3201009 03 x 180 M
SESI 15 21K 1WR	3201009 03 x 210 M
SESI 15 27K 1WR	3201009 03 x 270 M
SESI 15 33K 1WR	3201009 03 x 330 M
SESI 15 48K 1WR	3201009 03 x 480 K
SESI 15 56K 1WR	3201009 03 x 560 K
SESI 15 68K 1WR	3201009 03 x 680 K
SESI 15 82K 1WR	3201009 03 x 820 K
SESI 15 M10 1WR	3201009 03 x 101 K
SESI 15 M12 1WR	3201009 03 x 121 K
SESI 15 M15 1WR	3201009 03 x 151 K
SESI 15 M22 1WR	3201009 03 x 221 K
SESI 15 M33 1WR	3201009 03 x 331 K
SESI 15 1M0 1WR	3201009 03 x 102 K
SESI 15 2M3 1WR	3201009 03 x 232 K
3201009 03 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = N for ±30% y = M for ±20% y = K for ±10%

Cross reference chart

Microspire Non QPL ID Code	ESA SCC Component Part Number
SESI 18 6K8 1WR	3201009 04 x 6L8 M
SESI 18 8K2 1WR	3201009 04 x 8L2 M
SESI 18 11K 1WR	3201009 04 x 110 M
SESI 18 15K 1WR	3201009 04 x 150 M
SESI 18 18K 1WR	3201009 04 x 180 M
SESI 18 22K 1WR	3201009 04 x 220 M
SESI 18 27K 1WR	3201009 04 x 270 M
SESI 18 37K 1WR	3201009 04 x 370 K
SESI 18 49K 1WR	3201009 04 x 490 K
SESI 18 56K 1WR	3201009 04 x 560 K
SESI 18 70K 1WR	3201009 04 x 700 K
SESI 18 86K 1WR	3201009 04 x 860 K
SESI 18 M10 1WR	3201009 04 x 101 K
SESI 18 M12 1WR	3201009 04 x 121 K
SESI 18 M15 1WR	3201009 04 x 151 K
SESI 18 M18 1WR	3201009 04 x 181 K
SESI 18 M22 1WR	3201009 04 x 221 K
SESI 18 M33 1WR	3201009 04 x 331 K
3201009 04 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = M for ±20% y = K for ±10%



Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 22 7K0 2WR	3201009 06 x 7L0 M
SESI 22 7K7 2WR	3201009 06 x 7L7 M
SESI 22 10K 2WR	3201009 06 x 100 M
SESI 22 13K 2WR	3201009 06 x 130 M
SESI 22 19K 2WR	3201009 06 x 190 M
SESI 22 24K 2WR	3201009 06 x 240 M
SESI 22 33K 2WR	3201009 06 x 330 M
SESI 22 47K 1WR	3201009 06 x 470 K
SESI 22 64K 1WR	3201009 06 x 640 K
SESI 22 82K 1WR	3201009 06 x 820 K
SESI 22 M10 1WR	3201009 06 x 101 K
SESI 22 M15 1WR	3201009 06 x 151 K
SESI 22 M21 1WR	3201009 06 x 211 K
SESI 22 M34 1WR	3201009 06 x 341 K
SESI 22 M47 1WR	3201009 06 x 471 K
SESI 22 M68 1WR	3201009 06 x 681 K
SESI 22 M82 1WR	3201009 06 x 821 K
SESI 22 1M0 1WR	3201009 06 x 102 K
SESI 22 1M5 1WR	3201009 06 x 152 K
SESI 22 2M2 1WR	3201009 06 x 222 K
3201009 06 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = M for ±20% y = K for ±10%

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 32 4K9 1WR	3201009 07 x 4L9 N
SESI 32 12K 1WR	3201009 07 x 120 N
SESI 32 22K 1WR	3201009 07 x 220 N
SESI 32 36K 1WR	3201009 07 x 360 M
SESI 32 53K 1WR	3201009 07 x 530 M
SESI 32 73K 1WR	3201009 07 x 730 K
SESI 32 84K 1WR	3201009 07 x 840 K
SESI 32 M11 1WR	3201009 07 x 111 K
SESI 32 M15 1WR	3201009 07 x 151 K
SESI 32 M20 1WR	3201009 07 x 201 K
SESI 32 M26 1WR	3201009 07 x 261 K
SESI 32 M35 1WR	3201009 07 x 351 K
SESI 32 M45 1WR	3201009 07 x 451 K
SESI 32 M62 1WR	3201009 07 x 621 K
SESI 32 M83 1WR	3201009 07 x 831 K
SESI 32 1M0 1WR	3201009 07 x 102 K
SESI 32 2M0 1WR	3201009 07 x 202 K
SESI 32 4M7 1WR	3201009 07 x 472 K
3201009 07 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = M for ±20% y = K for ±10% y = N for ±30%

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 32 4K9 1PR	3201009 08 x 4L9 N
SESI 32 12K 1PR	3201009 08 x 120 N
SESI 32 22K 1PR	3201009 08 x 220 N
SESI 32 36K 1PR	3201009 08 x 360 M
SESI 32 53K 1PR	3201009 08 x 530 M
SESI 32 73K 1PR	3201009 08 x 730 K
SESI 32 84K 1PR	3201009 08 x 840 K
SESI 32 M11 1PR	3201009 08 x 111 K
SESI 32 M15 1PR	3201009 08 x 151 K
SESI 32 M20 1PR	3201009 08 x 201 K
SESI 32 M26 1PR	3201009 08 x 261 K
SESI 32 M35 1PR	3201009 08 x 351 K
SESI 32 M45 1PR	3201009 08 x 451 K
SESI 32 M62 1PR	3201009 08 x 621 K
SESI 32 M83 1PR	3201009 08 x 831 K
SESI 32 1M0 1PR	3201009 08 x 102 K
SESI 32 2M0 1PR	3201009 08 x 202 K
SESI 32 4M7 1PR	3201009 08 x 472 K
3201009 07 x### y	
x = B for Chart III level B x = C for Chart III level C	Tolerance : y = M for ±20% y = K for ±10% y = N for ±30%

