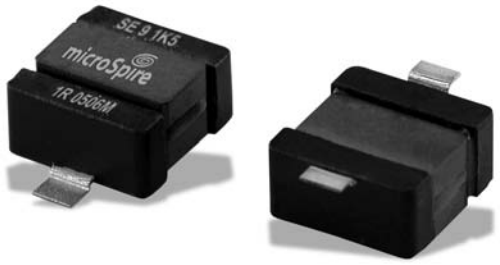
SMD Power Inductors - SESI 9WR High Reliability Applications



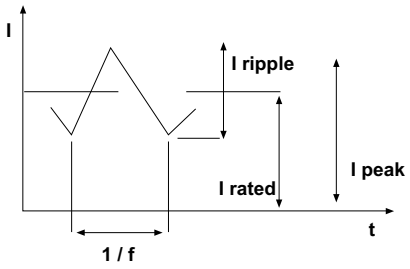
- Energy storage, smoothing, filtering
- Applied standards : ECSS-Q-70-02, MIL-STD-202, DO-160
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range : -55 °C to +125 °C
- Weight : 2 grams

Electrical Data (25°C)

ID Code	$L^{1,2}$ no load µH	$I^{3,6}$ rated A	$L^{2,4}$ at rated I µH	I^{5} peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 9 1K0 1WR	1.0	6.0	0.6	11.0	8.5	30
SESI 9 1K5 1WR	1.5	5.4	0.9	9.5	11.5	
SESI 9 2K0 2WR	2.0	4.3	1.4	8.2	17.0	
SESI 9 2K6 2WR	2.6	3.6	1.8	7.0	23	20
SESI 9 3K4 2WR	3.4	3.0	2.4	6.2	35	
SESI 9 4K3 2WR	4.3	2.8	3.0	5.5	40	
SESI 9 6K2 2WR	6.2	2.3	4.3	4.3	59	
SESI 9 8K5 2WR	8.5	1.9	6.0	3.7	87	
SESI 9 10K 2WR	10	1.85	7.0	3.4	93	
SESI 9 15K 2WR	15	1.50	10.5	2.8	140	
SESI 9 18K 2WR	18	1.27	12.6	2.5	192	
SESI 9 22K 2WR	22	1.21	15.4	2.3	215	
SESI 9 26K 2WR	26	1.03	18.2	2.14	290	
SESI 9 33K 2WR	33	0.92	23.1	1.9	350	10
SESI 9 47K 2WR	47	0.80	32.9	1.6	470	
SESI 9 66K 2WR	66	0.73	46.2	1.3	565	
SESI 9 81K 2WR	81	0.63	56.7	1.21	745	
SESI 9 M10 2WR	100	0.60	70	1.1	795	
SESI 9 M15 1WR	150	0.53	105	0.8	750	
SESI 9 M22 1WR	220	0.43	154	0.7	1165	
SESI 9 M33 1WR	330	0.36	231	0.6	1475	
SESI 9 M47 1WR	470	0.30	329	0.5	2220	
SESI 9 M68 1WR	680	0.25	477	0.4	3255	
SESI 9 1M0 1WR	1000	0.20	700	0.34	5865	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C ; L value not guaranted
5. 10 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 150 Vdc - 1 min - Ri > 100 MΩ between winding and magnetic core



To Order

SESI 9 ### #WR

SESI	9	###	#	W	R
SMD Energy Storage Inductor	Size	Value code 4K3 = 4,3 µH M10 = 100 µH 1M0 = 1000 µH	Version	GW Terminals	High reliability

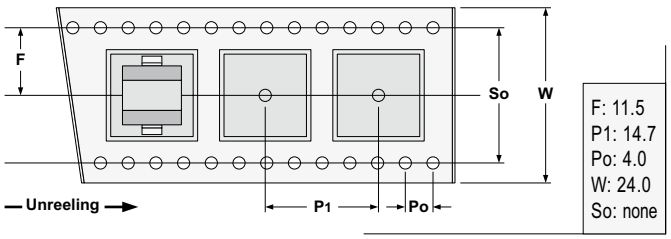
Connections

Marking

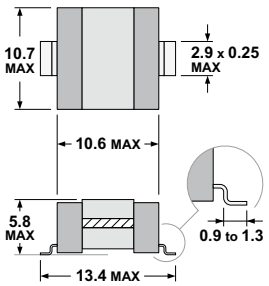
yyww : Date code

Packaging

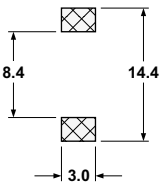
Tape and Reel:
700 pieces per reel of diameter 330 mm



Dimensions (mm, top view)



PCB Layout (suggested)



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SMD Power Inductors - SESI 9.1WR High Reliability Applications

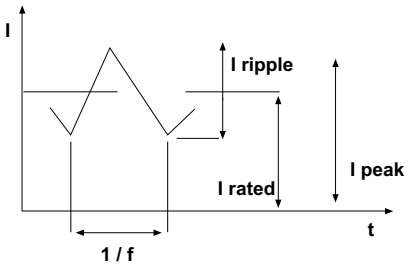
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 2 grams

Electrical Data (25°C)

ID Code	$L^{1,2}$ no load µH	$I^{3,6}$ rated A	$L^{2,4}$ at rated I µH	I^{5} peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 9.1 1K0 1WR	1.0	6.0	0.6	11.0	8.5	30
SESI 9.1 1K5 1WR	1.5	5.4	0.9	9.5	11.5	
SESI 9.1 2K0 2WR	2.0	4.3	1.4	8.2	17	
SESI 9.1 2K6 2WR	2.6	3.6	1.8	7.0	23	20
SESI 9.1 3K4 2WR	3.4	3.0	2.4	6.2	35	
SESI 9.1 4K3 2WR	4.3	2.8	3.0	5.5	40	
SESI 9.1 6K2 2WR	6.2	2.3	4.3	4.3	59	
SESI 9.1 8K5 2WR	8.5	1.9	6.0	3.7	87	
SESI 9.1 10K 2WR	10	1.85	7.0	3.4	93	
SESI 9.1 15K 2WR	15	1.5	10.5	2.8	140	
SESI 9.1 18K 2WR	18	1.27	12.6	2.5	192	
SESI 9.1 22K 2WR	22	1.21	15.4	2.3	215	
SESI 9.1 26K 2WR	26	1.03	18.2	2.14	290	
SESI 9.1 33K 2WR	33	0.92	23.1	1.9	350	10
SESI 9.1 47K 2WR	47	0.8	32.9	1.6	470	
SESI 9.1 66K 2WR	66	0.73	46.2	1.3	565	
SESI 9.1 81K 2WR	81	0.63	56.7	1.21	745	
SESI 9.1 M10 2WR	100	0.6	70	1.1	795	
SESI 9.1 M15 1WR	150	0.53	105	0.8	750	
SESI 9.1 M22 1WR	220	0.43	154	0.7	1165	
SESI 9.1 M33 1WR	330	0.36	231	0.6	1475	
SESI 9.1 M47 1WR	470	0.3	329	0.5	2220	
SESI 9.1 M68 1WR	680	0.25	477	0.4	3255	
SESI 9.1 1M0 1WR	1000	0.2	700	0.34	5865	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C; L value not guaranted
5. 10 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 150 Vdc
   - 1 min - Ri > 100 MΩ between winding and magnetic core



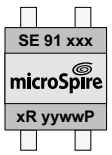
To Order

SESI 9.1 ### #WR

SESI	9.1	###	#	W	R
SMD Energy Storage Inductor	Size	Value code 4K3 = 4,3 µH M10 = 100 µH 1M0 = 1000 µH	Version	GW Terminals	High reliability

Connections

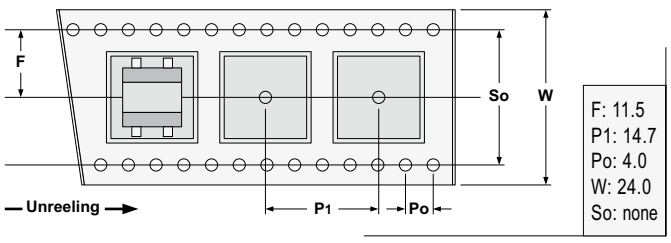
Marking



yyww : Date code

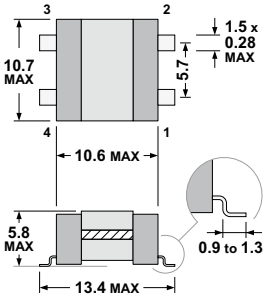
Packaging

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



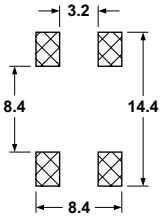
Dimensions

(mm, top view)



PCB Layout

(suggested)



SMD Power Inductors SESI 9.1WR

esa QPL Components

SESI 9.1WR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 9.1WR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

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 1M0 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%

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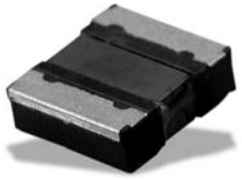
SMD Power Inductors - SESI 14SR High Reliability Applications



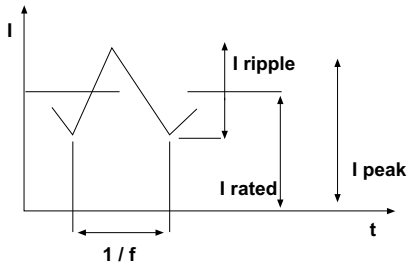
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 3.2 grams

Electrical Data (25°C)

ID Code	$L^{1,2}$ no load µH	$I^{3,6}$ rated A	$L^{2,4}$ at rated I µH	I^{5} peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 14 3K3 1SR	3.3	5.8	2.3	8.0	15.0	20
SESI 14 4K7 1SR	4.7	5.4	3.3	6.9	17.5	
SESI 14 6K0 1SR	6.0	4.3	4.2	5.7	26.5	
SESI 14 8K2 1SR	8.2	3.7	5.7	5.2	42	
SESI 14 10K 1SR	10	3.3	7.0	4.6	47	
SESI 14 15K 1SR	15	2.7	10.5	3.8	90	
SESI 14 22K 1SR	22	2.2	15.4	3.0	110	
SESI 14 33K 1SR	33	1.8	23.1	2.5	170	
SESI 14 47K 1SR	47	1.6	32.9	2.1	200	10
SESI 14 56K 1SR	56	1.5	39.2	1.9	240	
SESI 14 68K 1SR	68	1.3	47.6	1.7	290	
SESI 14 82K 1SR	82	1.2	57.4	1.5	315	
SESI 14 M10 1SR	100	1.1	70	1.4	440	
SESI 14 M12 1SR	120	1.0	84	1.3	500	
SESI 14 M15 1SR	150	0.9	105	1.1	645	
SESI 14 M18 1SR	180	0.83	126	1.0	740	
SESI 14 M22 1SR	220	0.72	154	1.0	980	
SESI 14 M33 1SR	330	0.57	231	0.8	1575	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C ; L value not guaranted
5. 40 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 Vdc
   - 1 min - Ri > 1 GΩ between winding and magnetic core



To Order

SESI 14 ### 1SR

SESI	14	###	1	S	R
SMD Energy Storage Inductor	Size	Value code 4K7 = 4,7 µH M10 = 100 µH 1M0 = 1000 µH	Version	SMD Terminals	High reliability

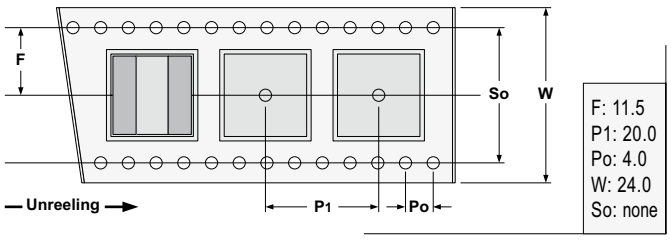
Connections

Marking

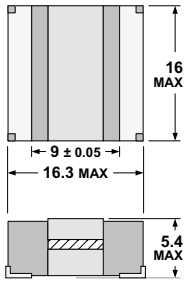
yyww : Date code

Packaging

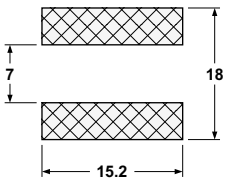
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions (mm, bottom view)



PCB Layout (suggested)



SMD Power Inductors SESI 14SR

esa QPL Components

SESI 14SR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 14SR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

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%

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SMD Power Inductors - SESI 15WR High Reliability Applications

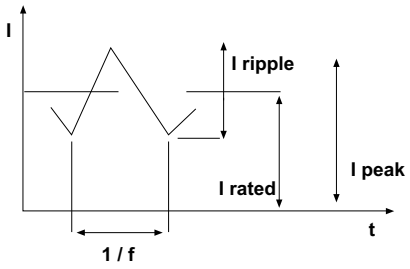
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 5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

Electrical Data (25°C)

ID Code	L[1,2] no load µH	I[3,6] rated A	L[2,4] at rated I µH	I[5] peak max A	Rdc 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	20
SESI 15 4K9 1WR	4.9	6.0	3.4	8.5	11	
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	
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	10
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

2. Inductance at 0.25 V, 100 kHz
3. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
4. Typical inductance value at recommended full load
5. I peak max = maximum peak value of current at +125 °C ; L value not guaranted
6. 40 % admissible I ripple over I rated at f = 200 kHz
7. Isolation voltage 500 Vdc - 1 min - Ri > 1 GΩ between winding and magnetic core

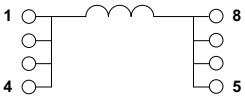


To Order

SESI 15 ### #WR

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

Connections

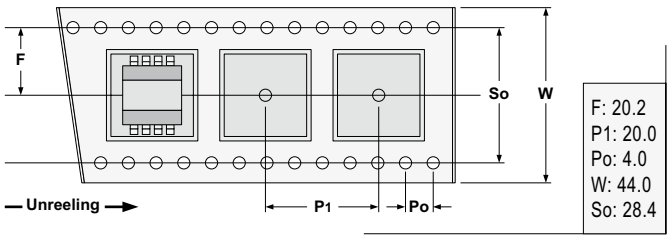


Marking

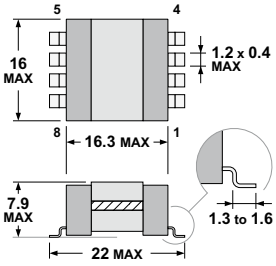
yyww : Date code

Packaging

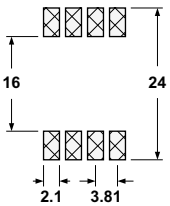
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions (mm, top view)



PCB Layout (suggested)



SMD Power Inductors SESI 15WR

esa QPL Components

SESI 15WR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 15WR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 15 1K5 2WR	3201009 03 x 1L5 M
SESI 15 1K8 1WR	3201009 03 x 1L8 M
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 = **M** for ±20% y = **K** for ±10%

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SMD Power Inductors - SESI 15SR High Reliability Applications

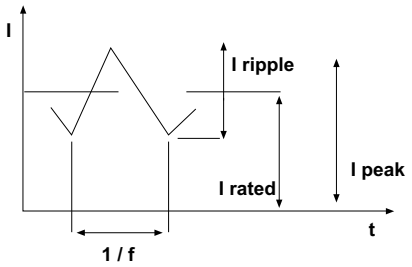
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 4.2 grams

Electrical Data (25°C)

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

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C ; L value not guaranted
5. 40 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 Vdc - 1 min - Ri > 1 GΩ between winding and magnetic core



To Order

SESI 15 ### #SR

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

Connections

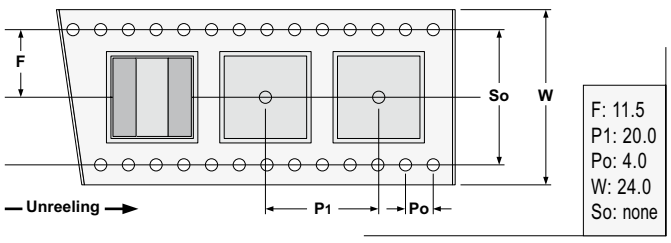
Marking

SE 15 xxx
microSpire
xR yywwP

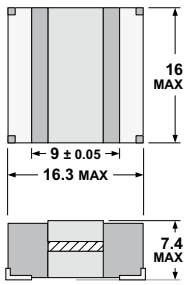
yyww : Date code

Packaging

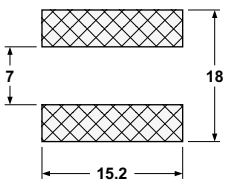
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions (mm, bottom view)



PCB Layout (suggested)



SMD Power Inductors SESI 15SR

esa QPL Components

SESI 15SR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 15SR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

Cross reference chart

Microspire Non-QPL ID Code	ESA SCC Component Part Number
SESI 15 1K5 2SR	3201009 02 x 1L5 M
SESI 15 1K8 1SR	3201009 02 x 1L8 M
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 = **M** for ±20% y = **K** for ±10%

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SMD Power Inductors - SESI 18WR High Reliability Applications

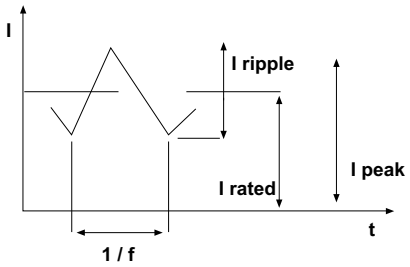
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 10 grams
- Shielded version upon request

Electrical Data (25°C)

ID Code	$L^{1,2}$ no load µH	$I^{3,6}$ rated A	$L^{2,4}$ at rated I µH	I^{5} peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 18 6K8 1WR	6.8	9.8	4.2	13.6	7.5	20
SESI 18 8K2 1WR	8.2	8.3	5.7	11.5	9.0	
SESI 18 11K 1WR	11	7.2	7.7	10	12	
SESI 18 15K 1WR	15	6.35	10.5	8.9	15	
SESI 18 18K 1WR	18	5.7	12.6	7.9	17	
SESI 18 22K 1WR	22	5.1	15.4	7.2	20	
SESI 18 22K 2WR	22.2	5.6	15.4	7.3	33	
SESI 18 27K 1WR	27	4.7	18.9	6.5	25	
SESI 18 37K 1WR	37	4.0	25.9	5.6	29	10
SESI 18 49K 1WR	49	3.5	34.3	4.8	45	
SESI 18 56K 1WR	56	3.3	39	4.6	48	
SESI 18 70K 1WR	70	2.9	49	4.1	65	
SESI 18 86K 1WR	86	2.6	60	3.7	72	
SESI 18 M10 1WR	100	2.4	70	3.3	75	
SESI 18 M12 1WR	120	2.2	84	3.1	115	
SESI 18 M15 1WR	150	1.95	105	2.7	125	
SESI 18 M18 1WR	180	1.8	126	2.6	175	
SESI 18 M22 1WR	220	1.6	154	2.3	210	
SESI 18 M33 1WR	330	1.34	231	1.9	250	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C ; L value not guaranted
5. 40 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 Vdc
   - 1 min - Ri > 1 GΩ between winding and magnetic core



To Order

SESI 18 ### #WR

SESI	18	###	#	W	R
SMD Energy Storage Inductor	Size	Value code 4K9 = 4,9 µH M10 = 100 µH 1M0 = 1000 µH	Version	GW Terminals	High reliability

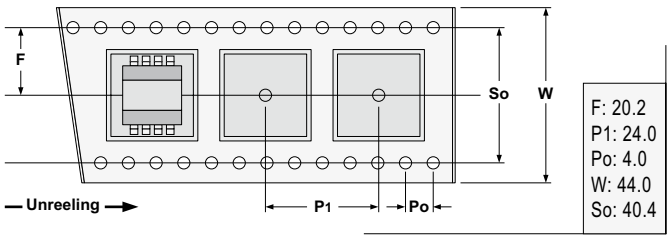
Connections

Marking

yyww : Date code

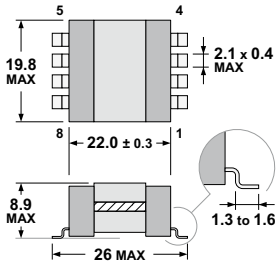
Packaging

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



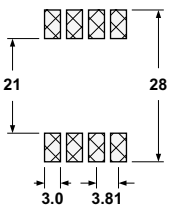
Dimensions

(mm, top view)



PCB Layout

(suggested)



SMD Power Inductors SESI 18WR

esa QPL Components

SESI 18WR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 18WR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

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 K
SESI 18 18K 1WR	3201009 04 x 180 K
SESI 18 22K 1WR	3201009 04 x 220 K
SESI 18 27K 1WR	3201009 04 x 270 K
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%

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SMD Power Inductors - SESI 22WR High Reliability Applications

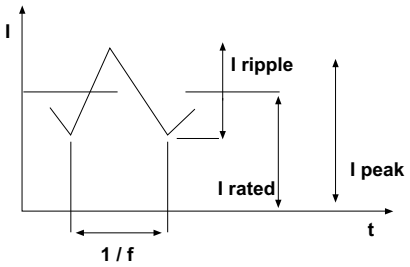
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 26 grams
- Shielded version upon request

Electrical Data (25°C)

ID Code	$L^{1,2}$ no load µH	$I^{3,6}$ rated A	$L^{2,4}$ at rated I µH	I^{5} peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 22 7K0 2WR	7	18.9	3.8	24.0	5.0	20
SESI 22 7K7 2WR	7.7	16.0	5.4	20.0	4.5	
SESI 22 10K 2WR	10.0	13.8	7.0	17.7	5.5	
SESI 22 13K 2WR	13.0	12.0	9.1	15.6	7.0	
SESI 22 19K 2WR	19.2	10.9	11.5	14.0	11	
SESI 22 24K 2WR	24.0	8.4	16.8	11.5	13	
SESI 22 33K 2WR	33.0	7.7	23.0	9.8	20	
SESI 22 47K 1WR	47.0	5.7	37.6	8.0	16	10
SESI 22 64K 1WR	64.0	5.0	51.2	7.0	21	
SESI 22 82K 1WR	82.0	4.3	65.6	6.1	24	
SESI 22 M10 1WR	100	3.9	80	5.5	30	
SESI 22 M15 1WR	150	3.2	120	4.7	44	
SESI 22 M21 1WR	210	2.7	168	3.8	70	
SESI 22 M34 1WR	340	2.1	272	3.0	120	
SESI 22 M47 1WR	470	1.8	376	2.5	180	
SESI 22 M68 1WR	680	1.5	544	2.1	220	
SESI 22 M82 1WR	820	1.4	656	2.0	300	
SESI 22 1M0 1WR	1000	1.2	800	1.8	330	
SESI 22 1M5 1WR	1500	1.1	1200	1.4	500	
SESI 22 2M2 1WR	2200	0.8	1760	1.2	760	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +125 °C; L value not guaranted
5. 35 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 Vdc
   - 1 min - Ri > 1 GΩ between winding and magnetic core

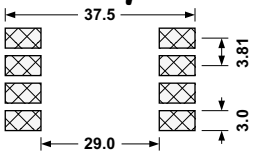


To Order

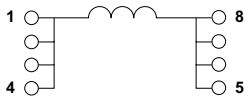
SESI 22 ### #WR

SESI	22	###	#	S	R
SMD Energy Storage Inductor	Size	Value code 7K7 = 7,7 µH M10 = 100 µH 1M0 = 1000 µH	Version	GW Terminals	High reliability

PCB Layout (suggested)

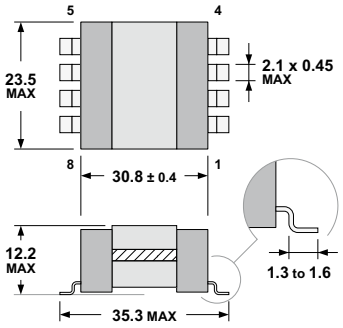


Connections



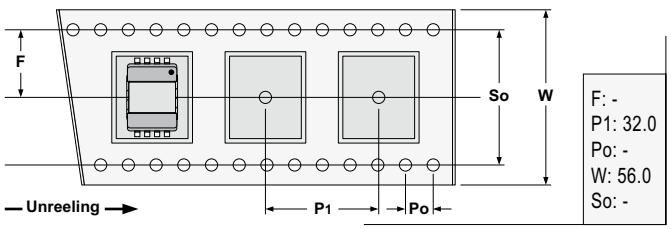
Dimensions

(mm, top view)



Packaging

Tape and Reel:
100 units per reel of diameter 330 mm



Marking

yyww : Date code

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SMD Power Inductors SESI 22WR

esa QPL Components

SESI 22WR series are usually installed on Military applications and breadboards for Space applications.

Since January 2003, Microspire has been manufacturing Radio Frequency Fixed Coils, SESI 22WR 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 terminal material and finish shall be brass, plated with 2 to 4 µm of Nickel, the finish shall be either Sn60Pb40 or Sn90Pb10.

Components must be glued to PCB in order to fulfil shock/vibration levels from detail specification N° 3201/009.

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%

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SMD Power Inductors - SESI 32WR High Reliability Applications

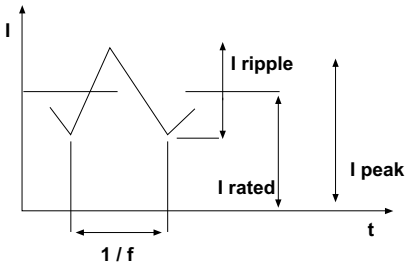
- Inductance values : 4.7 µH to 4700 µH
- Current up to 27 Arms and 38 A peak
- Through-hole design
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range : -55 °C to +85 °C
- Weight : 56 grams
- Shielded version upon request

Electrical Data (25°C)

ID Code	L[1,2] no load µH	I[3,6] rated A	L[2,4] at rated I µH	I[5] peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 32 35K 1PR	35	17	26	20	11.5	30

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) without heatsink ; with heatsink I = I rated x 1.4
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +85 °C ; L value not guaranted
5. 35 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 Vdc - 1 min - Ri > 1 GΩ between winding and magnetic core



To Order

SESI 32 ### 1PR

SESI	32	###	1	P	R
SMD Energy Storage Inductor	Size	Value code 35K = 35 µH	Version	Pins through hole	High reliability

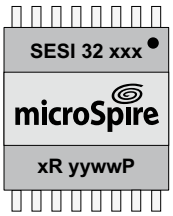
Packaging

Individually packed 20 parts on 2 layers.

Applications

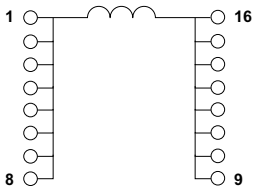
Energy storage, smoothing, filtering.

Marking

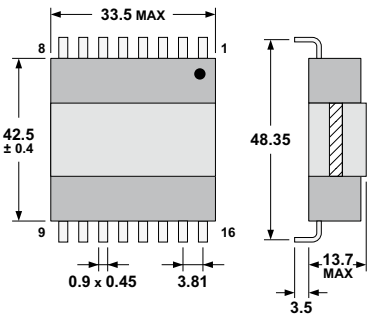


yyww :
Date code

Connections



Dimensions (mm)



PCB Layout (suggested)