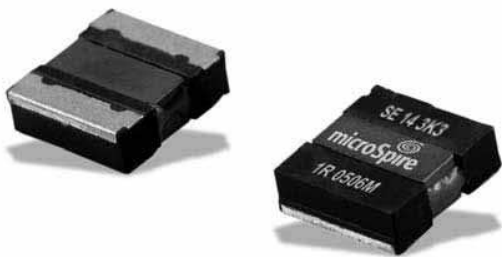


SMD Power Inductors - SESI 14SR High Reliability Applications



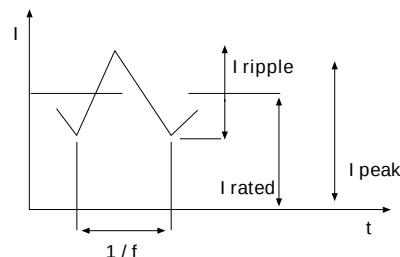
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for IR and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: -55 °C to +125 °C
- Weight: 3.2 grams

Electrical Data (25°C)

ID Code	L ¹² no load μH	I ¹⁸ rated A	L ²⁴ at rated I μH	I ⁵ peak max A	R _{dc} 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	10
SESI 14 47K 1SR	47	1.6	32.9	2.1	200	
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 guaranteed
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	###	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

SESI 14 ### 1SR

Connections



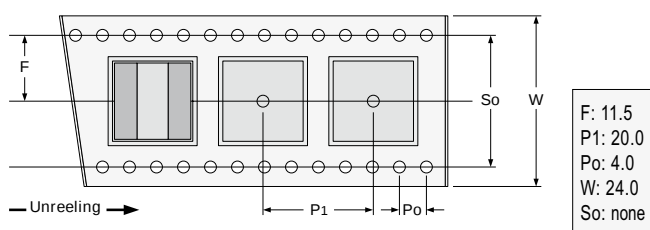
Marking

SE 14 xxx
xR yywwP

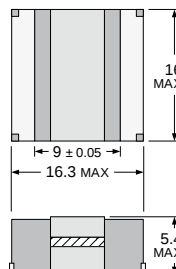
yyww :
Date code

Packaging

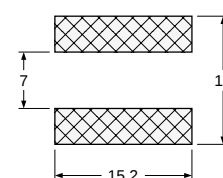
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions (mm, bottom view)



PCB Layout (suggested)



SMD Power Inductors SESI 14SR

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	Tolerance :
x = C for Chart III level C	y = M for ±20%
	y = K for ±10%

