SMD Power Inductors
SESI 9.1WR High Reliability Applications

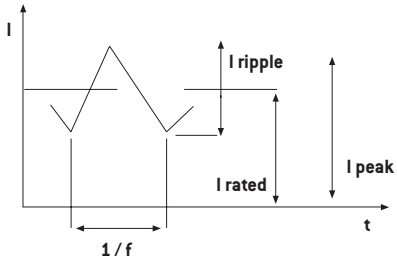
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 2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

Electrical Data (25°C)

ID Code	L[1] no load µH	I[2,4] rated A	L[3] at rated I µH	I[4,5] 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	20
SESI 9.1 2K6 2WR	2.6	3.6	1.8	7.0	23	
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	
SESI 9.1 6M8 1WR	6800	0.045	5440	0.067	28000	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC)can be increased on request depending on customer heat transfer
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. 10 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 150 V_{DC}
   - 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

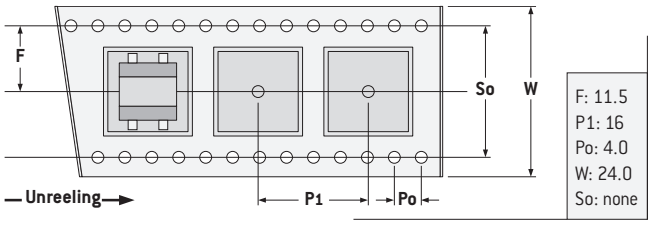
Connections

Marking

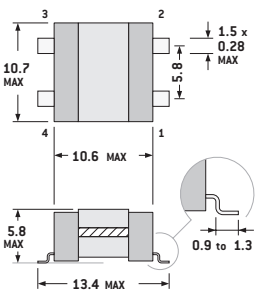
yyww:
Date code

Packaging

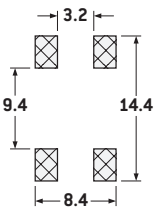
Tape and Reel:
700 pieces per reel of diameter 330 mm



Dimensions
(mm, top view)



PCB Layout
(suggested)



HIGH GRADE PRODUCTS

SMD Power Inductors
SESI 14SR High Reliability Applications

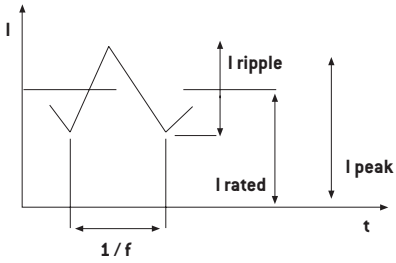
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 3.2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

Electrical Data (25°C)

ID Code	L[1] no load µH	I[2,4] rated A	L[3] at rated I µH	I[4,5] 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) can be increased on request depending on customer heat transfer
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 V_{DC}
   - 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

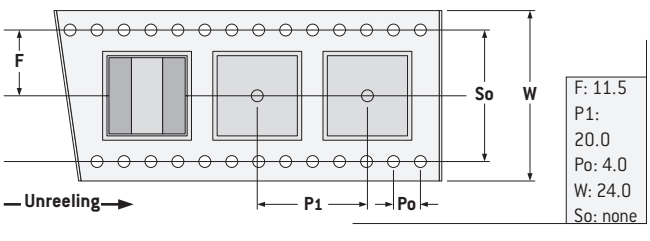
Connections

Marking

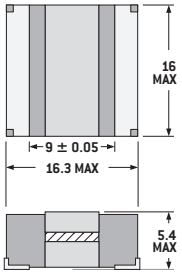
yyww: Date code

Packaging

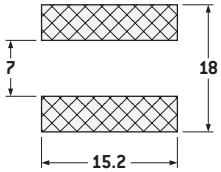
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions
(mm, bottom view)



PCB Layout
(suggested)



SMD Power Inductors
SESI 15SR High Reliability Applications

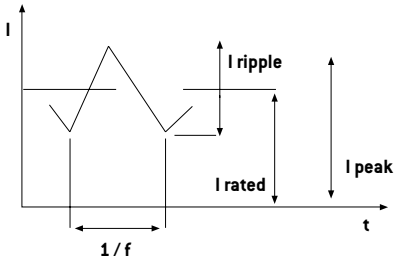
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 5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

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	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	2130	
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) can be increased on request depending on customer heat transfer
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 V_{DC}
   - 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	SMD Terminals	High reliability

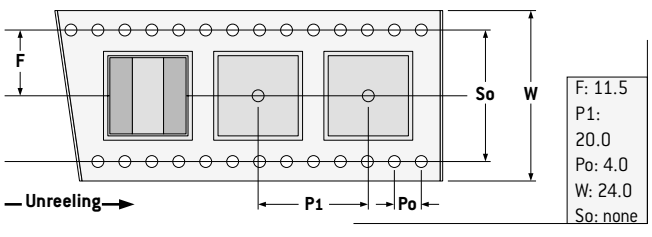
Connections

Marking

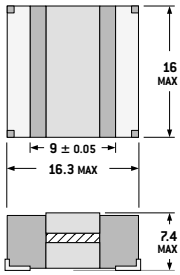
yyww: Date code

Packaging

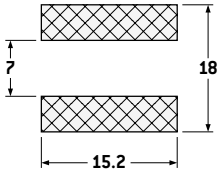
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions
(mm, bottom view)



PCB Layout
(suggested)



HIGH GRADE PRODUCTS

SMD Power Inductors
SESI 15WR High Reliability Applications

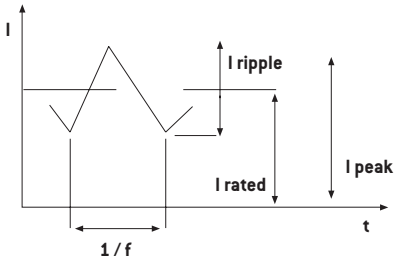
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 5 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	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	2130	
SESI 15 2M3 1WR	2290	0.28	1900	0.36	4400	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) can be increased on request depending on customer heat transfer
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 V_{DC}
   - 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

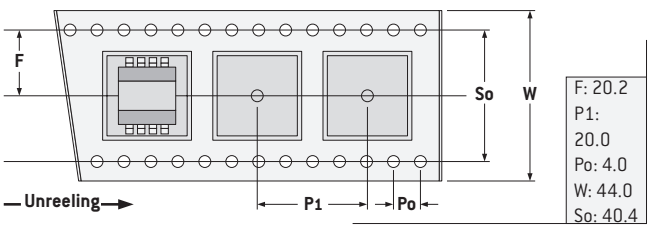
Connections

Marking

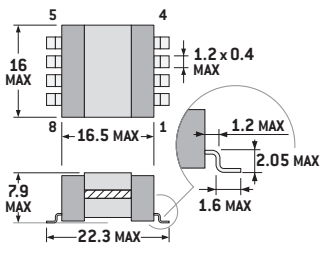
yyww:
Date code

Packaging

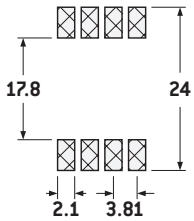
Tape and Reel:
400 pieces per reel of diameter 330 mm



Dimensions
(mm, top view)



PCB Layout
(suggested)



SMD Power Inductors
SESI 18WR High Reliability Applications

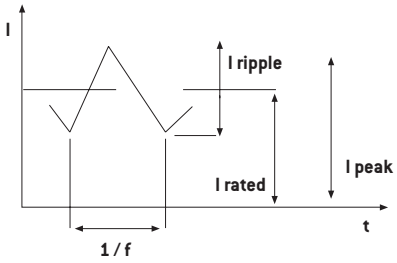
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 versions upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 10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

Electrical Data (25°C)

ID Code	L[1] no load µH	I[2,4] rated A	L[3] at rated I µH	I[4,5] 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	8.6	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	
SESI 18 M47 1WR	470	0.9	376	1.35	600	

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) can be increased on request depending on customer heat transfer
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 V_{DC}
   - 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

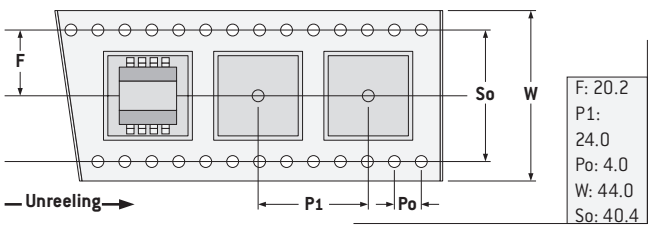
Connections

Marking

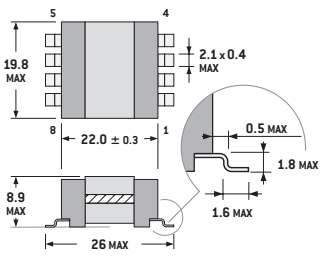
yyww: Date code

Packaging

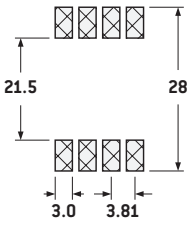
Tape and Reel:
300 pieces per reel of diameter 330 mm



Dimensions
(mm, top view)



PCB Layout
(suggested)



HIGH GRADE PRODUCTS

SMD Power Inductors
SESI 22WR High Reliability Applications

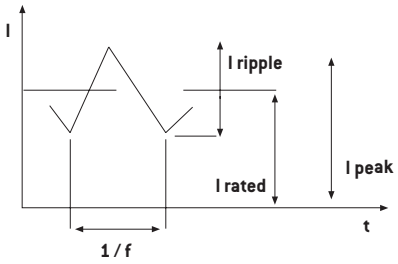
- Energy storage, smoothing, filtering
- Applied standards: ECSS-Q-70-02, MIL-STD-202, DO-160
- esa ESCC 3201/009 version upon request
- Materials meet UL94-V0 rating
- Suited for I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 26 grams
- Shielded version upon request

Electrical Data (25°C)

ID Code	L[1] no load µH	I[2,4] rated A	L[3] at rated I µH	I[4,5] 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	32.6	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) can be increased on request depending on customer heat transfer
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. 35 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 V_{DC} - 1 min - Ri > 1 GΩ between winding and magnetic core

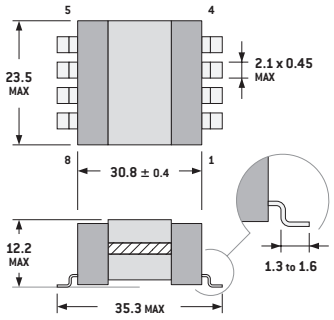


To Order

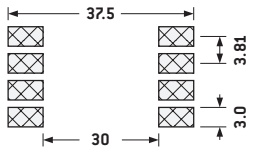
SESI 22 ### #WR

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

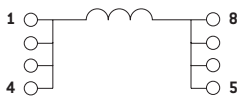
Dimensions
(mm, top view)



PCB Layout (suggested)

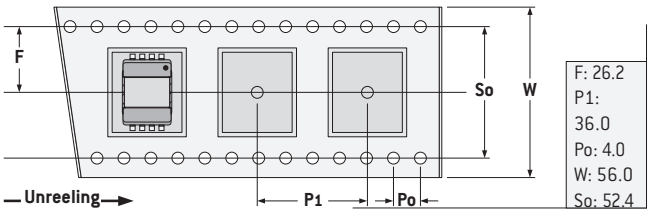


Connections



Packaging

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



Marking

yyww:
Date code

SMD Power Inductors
SESI 32W/PR High Reliability Applications

- esa ESCC 3201/009 version upon request
- 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 I_R and vapor reflow soldering
- Frequency range up to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: 56 grams
- Shielded version upon request

Electrical Data (25°C)

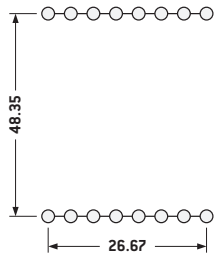
ID Code	L[1] no load µH	I[2,4] rated A	L[3] at rated I µH	I[4,5] peak max A	Rdc at 25°C mΩ Max	Tol.
SESI 32 4K9 1#R	4.9	24.0	3.0	27.6	1.9	30
SESI 32 12K 1#R	12.1	15.5	7.3	17.8	4.4	
SESI 32 22K 1#R	22.5	11.5	13.5	13.2	7.8	
SESI 32 36K 1#R	36.1	9.2	21. 75	10.6	13	20
SESI 32 53K 1#R	52.9	7.6	34.2	8.7	18	
SESI 32 73K 1#R	72.9	6.5	47.2	7.5	25	10
SESI 32 84K 1#R	84.1	6.0	68.0	6.9	29	
SESI 32 M11 1#R	109	5.3	88.0	6.1	38.5	
SESI 32 M15 1#R	152	4.5	123	5.2	54.5	
SESI 32 M20 1#R	202	3.9	163	4.5	70	
SESI 32 M26 1#R	260	3.4	210	3.9	89.5	
SESI 32 M35 1#R	348	3.0	281	3.4	117.5	
SESI 32 M45 1#R	476	2.5	385	2.9	160	
SESI 32 M62 1#R	624	2.2	505	2.5	221	
SESI 32 M83 1#R	828	1.9	670	2.2	254	
SESI 32 1M0 1#R	1020	1.7	826	2.0	353	
SESI 32 2M0 1#R	2045	1.2	1650	1.4	665	
SESI 32 4M7 1#R	4709	0.8	3760	0.92	1300	

To Order

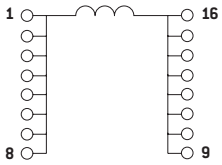
SESI 32 ### 1#R

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

PCB Layout (suggested)



Connections

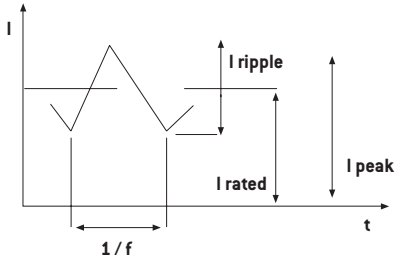


Marking

yyww:
Date code

Notes

1. Inductance at 0.25 V, 100 kHz
2. I rated (permanent DC) can be increased on request depending on customer heat transfer
3. Typical inductance value at recommended full load
4. I peak max = maximum peak value of current at +85°C ; L value not guaranteed
5. 35 % admissible I ripple over I rated at f = 200 kHz
6. Isolation voltage 500 V_{DC} - 1 min - Ri > 1 GΩ between winding and magnetic core



Packaging

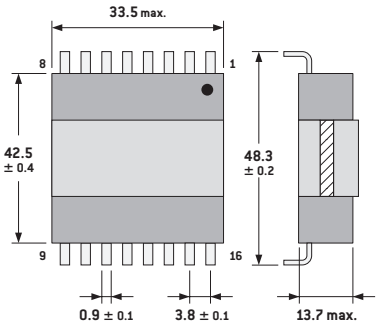
Individually packed 20 parts on 2 layers.

Applications

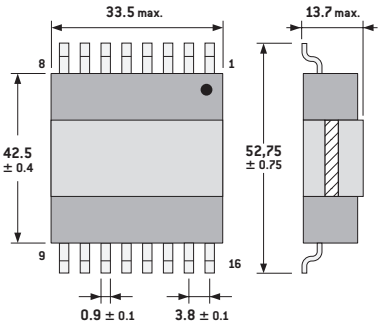
Energy storage, smoothing, filtering.

Dimensions (mm)

VARIANT P : pins through hole



VARIANT W : GW terminals



HIGH GRADE PRODUCTS

SMD Power Inductors
SESI xx

esa QPL Components

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

Since January 2003, **EXXELIA** 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 F2, burn-in and electrical measurements to testing Chart F3 and qualification testing Chart F4.

For procurement, different quality levels are offered:

- Final production tests Chart F2
- Burn-in and electrical measurements Chart F3
- Lot acceptance testing Chart F4 if required

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

Each component delivered is traceable to its production lot. The finish will be Sn60Pb40.

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 9.1 1K0 1WR	3201009 05 1L0 N
SESI 9.1 1K5 1WR	3201009 05 1L5 N
SESI 9.1 2K0 2WR	3201009 05 2L0 N
SESI 9.1 2K6 2WR	3201009 05 2L6 M
SESI 9.1 3K4 2WR	3201009 05 3L4 M
SESI 9.1 4K3 2WR	3201009 05 4L3 M
SESI 9.1 6K2 2WR	3201009 05 6L2 M
SESI 9.1 8K5 2WR	3201009 05 8L5 M
SESI 9.1 10K 2WR	3201009 05 100 M
SESI 9.1 15K 2WR	3201009 05 150 M
SESI 9.1 18K 2WR	3201009 05 180 M
SESI 9.1 22K 2WR	3201009 05 220 M
SESI 9.1 26K 2WR	3201009 05 260 M
SESI 9.1 33K 2WR	3201009 05 330 K
SESI 9.1 47K 2WR	3201009 05 470 K
SESI 9.1 66K 2WR	3201009 05 660 K
SESI 9.1 81K 2WR	3201009 05 810 K
SESI 9.1 M10 2WR	3201009 05 101 K
SESI 9.1 M15 1WR	3201009 05 151 K
SESI 9.1 M22 1WR	3201009 05 221 K
SESI 9.1 M33 1WR	3201009 05 331 K
SESI 9.1 M47 1WR	3201009 05 471 K
SESI 9.1 M68 1WR	3201009 05 681 K
SESI 9.1 1M0 1WR	3201009 05 102 K
3201009 05 ### y	

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

Cross reference chart

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

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

Cross reference chart

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

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

SMD Power Inductors
SESI xx

esa QPL Components

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 15 1K5 2WR	3201009 03 1L5 N
SESI 15 1K8 1WR	3201009 03 1L8 N
SESI 15 2K7 1WR	3201009 03 2L7 M
SESI 15 4K9 1WR	3201009 03 4L9 M
SESI 15 6K4 1WR	3201009 03 6L4 M
SESI 15 8K0 1WR	3201009 03 8L0 M
SESI 15 12K 1WR	3201009 03 120 M
SESI 15 16K 1WR	3201009 03 160 M
SESI 15 18K 1WR	3201009 03 180 M
SESI 15 21K 1WR	3201009 03 210 M
SESI 15 27K 1WR	3201009 03 270 M
SESI 15 33K 1WR	3201009 03 330 M
SESI 15 48K 1WR	3201009 03 480 K
SESI 15 56K 1WR	3201009 03 560 K
SESI 15 68K 1WR	3201009 03 680 K
SESI 15 82K 1WR	3201009 03 820 K
SESI 15 M10 1WR	3201009 03 101 K
SESI 15 M12 1WR	3201009 03 121 K
SESI 15 M15 1WR	3201009 03 151 K
SESI 15 M22 1WR	3201009 03 221 K
SESI 15 M33 1WR	3201009 03 331 K
SESI 15 1M0 1WR	3201009 03 102 K
SESI 15 2M3 1WR	3201009 03 232 K

3201009 03 ### y

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

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 18 6K8 1WR	3201009 04 6L8 M
SESI 18 8K2 1WR	3201009 04 8L2 M
SESI 18 11K 1WR	3201009 04 110 M
SESI 18 15K 1WR	3201009 04 150 M
SESI 18 18K 1WR	3201009 04 180 M
SESI 18 22K 1WR	3201009 04 220 M
SESI 18 27K 1WR	3201009 04 270 M
SESI 18 37K 1WR	3201009 04 370 K
SESI 18 49K 1WR	3201009 04 490 K
SESI 18 56K 1WR	3201009 04 560 K
SESI 18 70K 1WR	3201009 04 700 K
SESI 18 86K 1WR	3201009 04 860 K
SESI 18 M10 1WR	3201009 04 101 K
SESI 18 M12 1WR	3201009 04 121 K
SESI 18 M15 1WR	3201009 04 151 K
SESI 18 M18 1WR	3201009 04 181 K
SESI 18 M22 1WR	3201009 04 221 K
SESI 18 M33 1WR	3201009 04 331 K

3201009 04 ### y

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

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 22 7K0 2WR	3201009 06 7L0 M
SESI 22 7K7 2WR	3201009 06 7L7 M
SESI 22 10K 2WR	3201009 06 100 M
SESI 22 13K 2WR	3201009 06 130 M
SESI 22 19K 2WR	3201009 06 190 M
SESI 22 24K 2WR	3201009 06 240 M
SESI 22 33K 2WR	3201009 06 330 M
SESI 22 47K 1WR	3201009 06 470 K
SESI 22 64K 1WR	3201009 06 640 K
SESI 22 82K 1WR	3201009 06 820 K
SESI 22 M10 1WR	3201009 06 101 K
SESI 22 M15 1WR	3201009 06 151 K
SESI 22 M21 1WR	3201009 06 211 K
SESI 22 M34 1WR	3201009 06 341 K
SESI 22 M47 1WR	3201009 06 471 K
SESI 22 M68 1WR	3201009 06 681 K
SESI 22 M82 1WR	3201009 06 821 K
SESI 22 1M0 1WR	3201009 06 102 K
SESI 22 1M5 1WR	3201009 06 152 K
SESI 22 2M2 1WR	3201009 06 222 K

3201009 06 ### y

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

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 32 4K9 1WR	3201009 07 4L9 N
SESI 32 12K 1WR	3201009 07 120 N
SESI 32 22K 1WR	3201009 07 220 N
SESI 32 36K 1WR	3201009 07 360 M
SESI 32 53K 1WR	3201009 07 530 M
SESI 32 73K 1WR	3201009 07 730 K
SESI 32 84K 1WR	3201009 07 840 K
SESI 32 M11 1WR	3201009 07 111 K
SESI 32 M15 1WR	3201009 07 151 K
SESI 32 M20 1WR	3201009 07 201 K
SESI 32 M26 1WR	3201009 07 261 K
SESI 32 M35 1WR	3201009 07 351 K
SESI 32 M45 1WR	3201009 07 451 K
SESI 32 M62 1WR	3201009 07 621 K
SESI 32 M83 1WR	3201009 07 831 K
SESI 32 1M0 1WR	3201009 07 102 K
SESI 32 2M0 1WR	3201009 07 202 K
SESI 32 4M7 1WR	3201009 07 472 K

3201009 07 ### y

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

Cross reference chart

EXXELIA Non-QPL ID Code	ESA SCC Component Part Number
SESI 32 4K9 1PR	3201009 08 4L9 N
SESI 32 12K 1PR	3201009 08 120 N
SESI 32 22K 1PR	3201009 08 220 N
SESI 32 36K 1PR	3201009 08 360 M
SESI 32 53K 1PR	3201009 08 530 M
SESI 32 73K 1PR	3201009 08 730 K
SESI 32 84K 1PR	3201009 08 840 K
SESI 32 M11 1PR	3201009 08 111 K
SESI 32 M15 1PR	3201009 08 151 K
SESI 32 M20 1PR	3201009 08 201 K
SESI 32 M26 1PR	3201009 08 261 K
SESI 32 M35 1PR	3201009 08 351 K
SESI 32 M45 1PR	3201009 08 451 K
SESI 32 M62 1PR	3201009 08 621 K
SESI 32 M83 1PR	3201009 08 831 K
SESI 32 1M0 1PR	3201009 08 102 K
SESI 32 2M0 1PR	3201009 08 202 K
SESI 32 4M7 1PR	3201009 08 472 K

3201009 07 ### y

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

High Temperature SMD power Inductors
HTSE xx WR/SR

EXXELIA develops a new range of high temperature SESI power inductors.
The new product HTSE are under development, full qualification is under progress

HTSE 22

HTSE 18

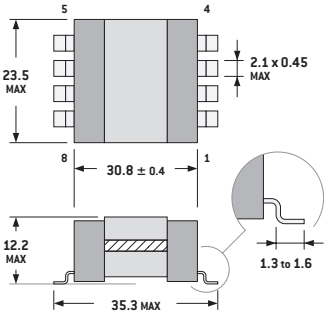
HTSE 15

HTSE 9.1

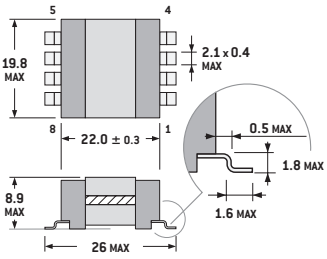
- HTSE 9.1/15/18/20 same packaging as SESI 9.1/15/18/22 (see catalogue pages 64 to 69)
- RoHS compliant
- Suited for I_R and vapor reflow soldering
- Operation temperature range: –55°C to +180°C with an ambient from –55°C to +155°C
- Thermal index of component: +215°C
- Frequency range depends on current ripple value: 500 kHz max with I ripple max 15% (peak-peak value) of I rated
- Stable inductance value over the whole range of operating temperature –55 to 180°C

Dimensions
(mm, top view)

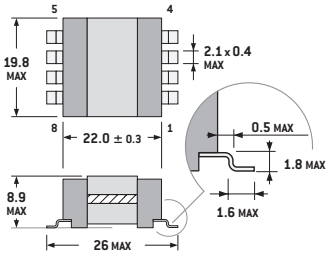
HTSE 22



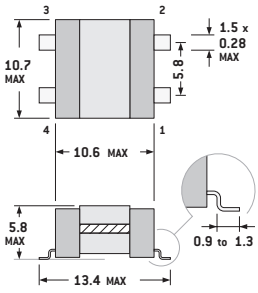
HTSE 18



HTSE 15



HTSE 9.1



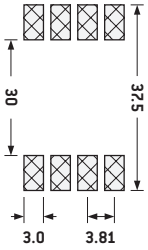
Connections

HTSE 22/18/15

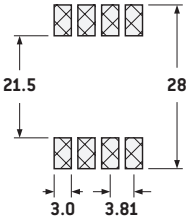
HTSE 9.1

PCB Layout
(suggested)

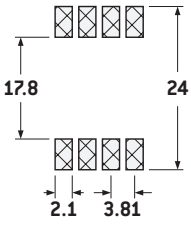
HTSE 22



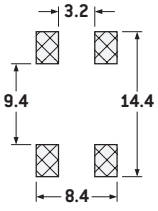
HTSE 18



HTSE 15

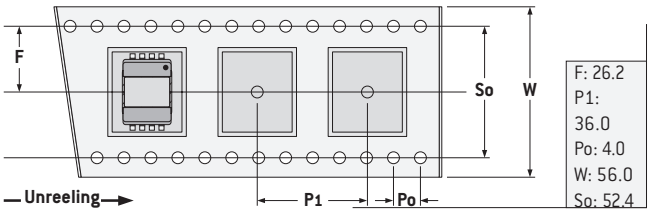


HTSE 9.1



Packaging

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



Marking

yyww:
Date code

High Temperature SMD power Inductors
HTSE xx WR/SR

Electrical Data

ID Code	L [1] no load µH	Rdc [2] at 25°C mΩ	I rated [3] at 25°C A	I rated [3] at 155°C A	I peak [4] at 155°C A	L at I peak at 155°C µH	* Tol. ± %
HTSE22-9K0-1WR	9.5	4.2	16.4	10.2	11.7	8.6	20
HTSE22-17K-1WR	17.7	8	12.0	7.5	8.6	15.9	
HTSE22-22K-1WR	22.8	9	10.6	6.6	7.6	20.5	15
HTSE22-35K-1WR	34.7	15.4	8.6	5.3	6.1	31.3	
HTSE22-49K-1WR	49.2	22.4	7.2	4.5	5.2	44.3	
HTSE22-66K-1WR	66.2	26	6.2	3.9	4.4	59.6	12
HTSE22-97K-1WR	96.5	40	5.1	3.2	3.7	86.8	
HTSE22-M15-1WR	145.6	61.3	4.2	2.6	3.0	131.0	
HTSE22-M22-1WR	221.2	95.6	3.4	2.1	2.4	199.1	
HTSE22-M33-1WR	332.7	148	2.8	1.7	2.0	299.4	
HTSE22-M57-1WR	569.0	242.4	2.1	1.3	1.5	512.1	10
HTSE22-M71-1WR	710.7	334	1.9	1.2	1.4	639.6	
HTSE22-1M0-1WR	1005.6	397	1.6	1.0	1.14	905.0	
HTSE22-1M5-1WR	1521.5	617	1.3	0.8	0.93	1369.4	
HTSE22-2M0-1WR	2041.3	907	1.12	0.7	0.8	1837.2	
HTSE18-7K6-1WR	7.6	6.2	10.0	5.6	6.5	6.8	20
HTSE18-14K-1WR	14.1	10.2	7.3	4.1	4.8	12.7	
HTSE18-22K-1WR	22.6	16.2	5.8	3.3	3.8	20.3	
HTSE18-33K-1WR	33.1	24.7	4.8	2.7	3.1	29.8	15
HTSE18-60K-1WR	60.1	41.9	3.5	2.0	2.3	54.1	
HTSE18-85K-1WR	85.6	63	3.0	1.7	1.9	77.0	12
HTSE18-M11-1WR	115.6	91.6	2.6	1.4	1.7	104.0	
HTSE18-M16-1WR	162.6	133.7	2.2	1.2	1.4	146.3	
HTSE18-M22-1WR	217.6	154.4	1.9	1.05	1.21	195.8	
HTSE18-M28-1WR	280.6	221	1.64	0.93	1.06	252.5	
HTSE18-M35-1WR	351.6	228	1.47	0.83	0.95	316.4	10
HTSE18-M45-1WR	451.6	356	1.3	0.73	0.84	406.4	
HTSE18-M59-1WR	588.1	515	1.13	0.64	0.74	529.3	
HTSE18-M71-1WR	715.6	568	1.03	0.58	0.67	644.0	
HTSE18-1M0-1WR	1008.1	851	0.87	0.50	0.56	907.3	

* Tolerance on loaded an no load inductances

Electrical Data

ID Code	L [1] no load µH	Rdc [2] at 25°C mΩ	I rated [3] at 25°C A	I rated [3] at 155°C A	I peak [4] at 155°C A	L at I peak at 155°C µH	* Tol. ± %
HTSE15-5K6-1WR/SR	5.6	8.7	6.7	4.0	4.6	5.1	20
HTSE15-7K2-1WR/SR	7.2	12.4	5.9	3.5	4.1	6.5	
HTSE15-11K-1WR/SR	11.0	19.3	4.8	2.9	3.3	9.9	
HTSE15-18K-1WR/SR	18.2	31	3.7	2.2	2.6	16.4	15
HTSE15-27K-1WR/SR	27.2	47.3	3.0	1.8	2.1	24.5	
HTSE15-38K-1WR/SR	38.0	68.7	2.6	1.5	1.8	34.2	12
HTSE15-50K-1WR/SR	50.6	79	2.2	1.3	1.5	45.6	
HTSE15-65K-1WR/SR	65.0	113	2.0	1.2	1.4	58.5	
HTSE15-81K-1WR/SR	81.2	126	1.8	1.1	1.2	73.1	
HTSE15-M10-1WR/SR	105.6	182.2	1.5	0.9	1.1	95.1	
HTSE15-M15-1WR/SR	148.2	273.5	1.3	0.78	0.9	133.4	10
HTSE15-M20-1WR/SR	207.0	408	1.1	0.66	0.76	186.3	
HTSE15-M30-1WR/SR	308.0	497.2	0.9	0.54	0.62	277.2	
HTSE15-M47-1WR/SR	469.2	957.5	0.73	0.44	0.5	422.3	
HTSE15-1M0-1WR/SR	1010.0	1758	0.5	0.3	0.34	909.0	
HTSE91-3K0-1WR	3.0	14	5.4	3.1	3.5	2.7	20
HTSE91-7K2-1WR	7.2	34	3.7	2.1	2.4	5.7	
HTSE91-11K-1WR	11.0	52	2.8	1.6	1.8	9.8	
HTSE91-18K-1WR	18.2	83	2.3	1.3	1.5	15.1	15
HTSE91-27K-1WR	27.2	126	1.8	1.0	1.2	24.0	
HTSE91-38K-1WR	38.0	186	1.6	0.9	1.0	31.9	12
HTSE91-50K-1WR	50.6	213	1.32	0.75	0.87	44.2	
HTSE91-65K-1WR	65.0	298	1.15	0.66	0.75	58.6	
HTSE91-81K-1WR	81.2	332	1.0	0.58	0.67	75.0	
HTSE91-M10-1WR	105.6	478	0.9	0.52	0.6	93.4	
HTSE91-M15-1WR	148.2	737	0.75	0.43	0.49	136.2	10
HTSE91-M21-1WR	207.0	869	0.63	0.36	0.4	194.1	
HTSE91-M31-1WR	308.0	1328	0.5	0.29	0.34	295.6	
HTSE91-M47-1WR	469.2	2038	0.43	0.25	0.28	418.5	
HTSE91-1M0-1WR	1010.0	4618	0.36	0.2	0.23	611.2	

* Tolerance on loaded an no load inductances

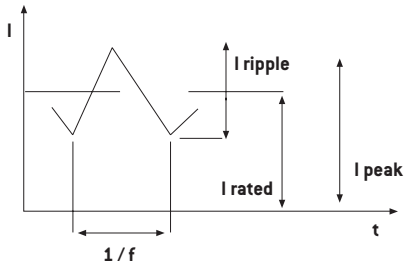
To Order

HTSE## ### ##R

HTSE	##	###	#	#	R
SMD Energy Storage Inductor	Size	Value code 3K0 = 3 µH 65K = 65 µH 1M0 = 1000 µH	Version	**S**: SMD terminals **W**: GW terminals	High reliability

Notes

1. Inductance measured @150 Gauss
2. Tolerance on DC resistance ±12%
3. I rated (permanent DC) without heatsink depends on the operating temperature
4. Peak current defined with 15% of ripple at 500 kHz. Some other current waveforms (combination of DC + ripple amplitude/frequency) are possible on request to Exxelia Technical team



HIGH GRADE PRODUCTS