

DUAL WINDING, SHIELDING INDUCTORS

SDRH1207D SERIES

Description:

- Four sizes of shielded drum core inductors
- Windings can be connected in series or parallel offering a broad range of inductance and current ratings
- Surface Mount

Packaging:

- Supplied in tape and reel packaging 1350 (DRQ73), 1100 (DRQ74) 600 (DRQ125), and 350 (DRQ127) per reel

Applications:

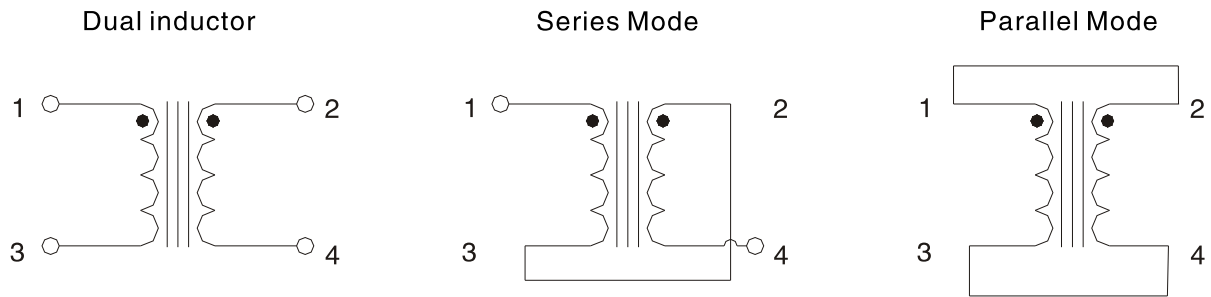
- As a transformer: SEPIC, flyback
- As an inductor: buck, boost, coupled inductor
- DC-DC converters
- VRM inductor for CPU and DDR power supplies
- Input and output filter chokes

ELECTRICAL CHARACTERISTICS:

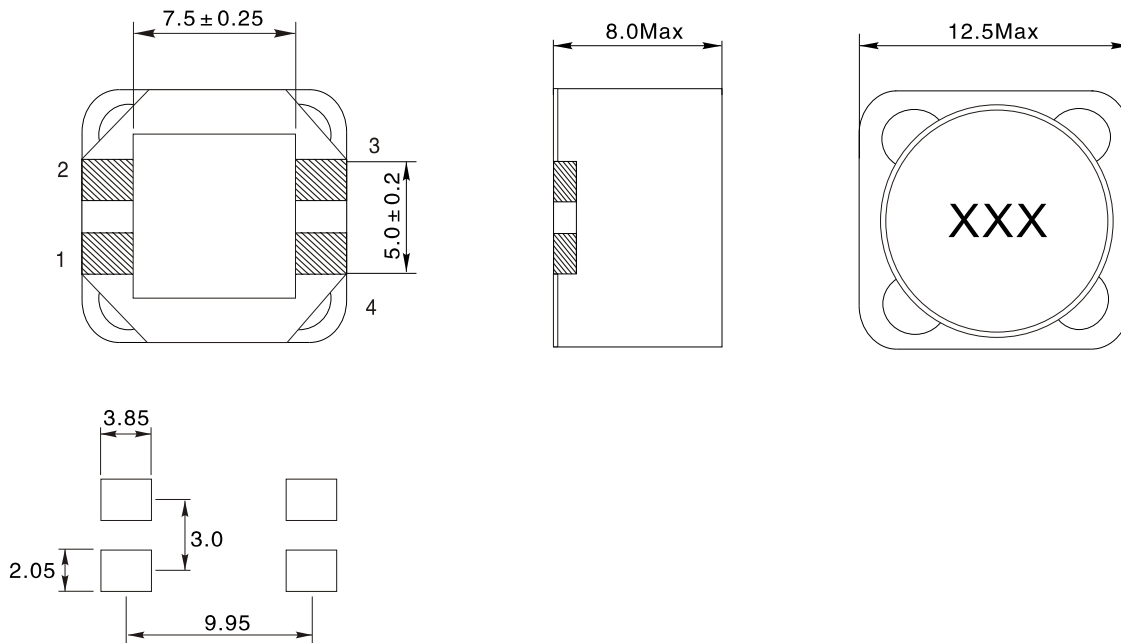
Part Number	Rated Inductance (uH)	Parallel ratings					Series ratings				
		OCL ^① ± 20% (uH)	I _{rms} ^② (A)	I _{sat} ^③ (A)	DCR ^④ (Ω)	Volt u-sec ^⑤	OCL ^① ± 20% (uH)	I _{rms} ^② (A)	I _{sat} ^③ (A)	DCR ^④ (Ω)	Volt u-sec ^⑤
SDRH1207D-R47M	0.47	0.419	17.9	56.0	0.00195	3.50	1.676	8.94	28	0.0078	7.00
SDRH1207D-1R0M	1.0	0.821	15.5	40.0	0.00261	4.90	3.284	7.74	20	0.0104	9.80
SDRH1207D-1R5M	1.5	1.357	13.5	31.1	0.00341	6.30	5.428	6.77	15.6	0.0137	12.60
SDRH1207D-2R2M	2.2	2.027	12.5	25.5	0.00373	7.70	8.108	6.23	12.7	0.0161	15.4
SDRH1207D-3R3M	3.3	2.831	10.4	21.5	0.00567	9.10	11.32	5.23	10.8	0.0229	18.2
SDRH1207D-4R7M	4.7	4.841	8.25	16.5	0.00917	11.9	19.36	4.13	8.24	0.0367	23.8
SDRH1207D-6R8M	6.8	7.387	7.34	13.3	0.0116	14.7	29.55	3.67	6.67	0.0465	29.4
SDRH1207D-8R2M	8.2	8.861	6.32	12.2	0.0157	16.1	35.44	3.16	6.09	0.0627	32.2
SDRH1207D-100M	10	10.47	6.04	11.2	0.0172	17.5	41.88	3.02	5.60	0.0686	35.0
SDRH1207D-150M	15	14.09	5.03	9.66	0.0247	20.3	56.36	2.51	4.83	0.0990	40.6
SDRH1207D-220M	22	22.93	4.00	7.57	0.0391	25.9	91.72	2.00	3.78	0.157	51.8
SDRH1207D-330M	33	33.92	3.23	6.22	0.0600	31.5	135.7	1.61	3.11	0.241	63.0
SDRH1207D-470M	47	47.05	2.95	5.28	0.0719	37.1	188.2	1.47	2.64	0.288	74.2
SDRH1207D-680M	68	66.48	2.44	4.44	0.105	44.1	265.9	1.22	2.22	0.421	88.2
SDRH1207D-820M	82	79.75	2.09	4.06	0.143	48.3	319.0	1.04	2.03	0.573	96.6
SDRH1207D-101M	100	99.31	1.96	3.64	0.163	53.9	397.2	0.980	1.82	0.653	107.8
SDRH1207D-151M	150	144.9	1.59	3.01	0.247	65.1	579.6	0.796	1.51	0.989	130.2
SDRH1207D-221M	220	221.5	1.29	2.43	0.376	80.5	886.0	0.645	1.22	1.50	161
SDRH1207D-331M	330	323.6	1.04	2.01	0.574	97.3	1294	0.522	1.01	2.30	195
SDRH1207D-471M	470	467.1	0.85	1.68	0.861	117	1868	0.427	0.838	3.44	234
SDRH1207D-681M	680	676.7	0.76	1.39	1.08	141	2707	0.380	0.697	4.32	282
SDRH1207D-821M	820	818.1	0.65	1.27	1.47	155	3272	0.325	0.633	5.88	310
SDRH1207D-102M	1000	1005	0.61	1.14	1.66	172	4020	0.307	0.571	6.64	344

- 1) Open Circuit Inductance Test Parameters: 100kHz, 0.25 Vrms, 0.0 A dc Parallel: (1, 2 - 4, 3) Series: (1-4) tie (2-3)
- 2) RMS current for an approximate DT of 40°C without core loss. It is recommended that the temperature of the part not exceed 125°C.
- 3) Peak current for approximately 30% roll-off at 20°C
- 4) DCR limits @ 20°C
- 5) Applied Volt-Time product (V-μs) across the inductor. This value represents the applied V-μs at 100kHz necessary to generate a core loss equal to 10% of the total losses for a 40°C temperature rise.

SCHEMATIC



PHYSICAL CHARACTERISTICS(Dimensions:mm)



Recommended Land Pattern

Notes:

1. 200Vac Isolation between windings
2. Storage temperature: -40°C to $+125^{\circ}\text{C}$
3. Operating temperature: -40°C to $+125^{\circ}\text{C}$ (range is application specific).
4. Solderreflow temperature: 260°C max. for 10 seconds max.
5. Turns Ratio (1:3):(2-4)=1:1
6. All specifications subject to change without notice.