COUPLED INDUCTORS,COMMON MODE CHOKES
SDRH1278D SERIES

FEATURES:

- Only 7.8 mm high and 12.3 mm square
- Ideal for use in flyback, multi–output buck, SEPIC and Zeta applications
- High inductance, high efficiency and excellent current handling
- Can also be used as two single inductors connected in series or parallel or as a common mode choke
- UL Certified per File E219588

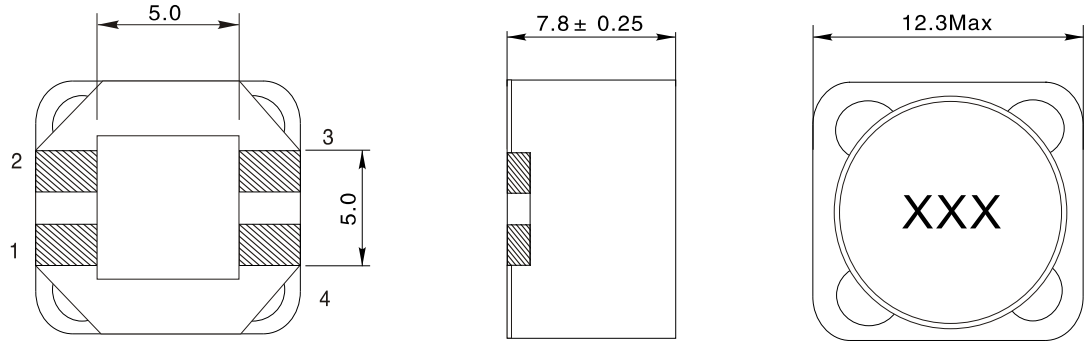
ELECTRICAL CHARACTERISTICS:

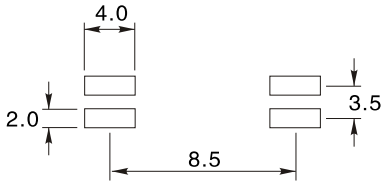
Part number SDRH1278D–	Inductance (uH)	DCR max (Ohms)	SRF typ (Mhz)	Coupling coefficient typ	Leakage L typ (uH)	Isat (A)			Irms (A)	
						10% drop	20% drop	30% drop	both windings	one windings
4R7M	4.7+20%	0.040	33.0	0.98	0.22	13.90	15.20	16.36	3.16	4.47
5R6M	5.6+20%	0.046	30.0	0.98	0.23	13.38	14.86	15.74	2.87	4.06
6R8M	6.8+20%	0.048	23.0	0.98	0.22	12.10	13.56	14.20	2.81	3.98
8R2M	8.2+20%	0.055	20.0	0.98	0.34	10.30	11.52	12.20	2.76	3.90
100M	10+20%	0.058	17.0	0.98	0.34	8.80	10.00	10.66	2.56	3.62
120M	12+20%	0.062	15.0	0.98	0.36	8.20	9.18	9.74	2.48	3.50
150M	15+20%	0.072	13.0	0.99	0.41	7.40	8.36	9.03	2.30	3.25
180M	18+20%	0.080	12.0	0.99	0.37	6.50	7.38	7.86	2.18	3.08
220M	22+20%	0.096	11.0	0.99	0.41	6.00	6.80	7.26	1.99	2.81
270M	27+20%	0.120	10.0	0.99	0.43	5.80	6.56	7.02	1.78	2.52
330M	33+20%	0.150	9.5	0.99	0.56	5.50	6.10	6.52	1.59	2.25
390M	39+20%	0.161	8.5	0.99	0.64	4.70	5.26	5.60	1.54	2.18
470M	47+20%	0.180	7.5	0.99	0.70	3.70	4.34	4.60	1.45	2.05
560M	56+20%	0.190	7.0	0.99	0.76	3.60	4.18	4.50	1.41	2.00
680M	68+20%	0.210	6.5	0.99	0.88	3.50	4.04	4.32	1.35	1.90
820M	82+20%	0.280	5.0	0.99	0.85	2.60	3.72	4.02	1.16	1.65
101M	100+20%	0.300	4.5	>0.99	0.90	2.20	3.24	3.46	1.13	1.59
121K	120+10%	0.410	4.3	0.99	1.31	2.10	2.94	3.16	0.96	1.36
151K	150+10%	0.460	4.1	>0.99	1.46	3.30	2.54	2.70	0.91	1.29
181K	180+10%	0.510	4.0	>0.99	0.93	2.80	2.42	2.58	0.86	1.22
221K	220+10%	0.690	3.4	>0.99	1.54	1.90	2.16	2.28	0.74	1.05
271K	270+10%	0.900	3.1	>0.99	1.17	1.70	1.94	2.10	0.65	0.92
331K	330+10%	1.02	2.9	0.99	4.14	1.50	1.70	1.84	0.61	0.86
391K	390+10%	1.12	2.7	>0.99	1.64	1.40	1.60	1.70	0.58	0.82
471K	470+10%	1.53	2.2	>0.99	0.25	1.30	1.50	1.60	0.50	0.70
561K	560+10%	1.69	2.0	>0.99	2.68	1.20	1.34	1.46	0.47	0.67
681K	680+10%	2.29	1.7	>0.99	2.11	1.00	1.08	1.22	0.41	0.58
821K	820+10%	2.55	1.4	>0.99	2.39	0.900	1.04	1.18	0.39	0.55
102K	1000+10%	2.87	1.3	>0.99	4.28	0.850	0.948	1.05	0.37	0.52

1. Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent. When leads are connected in parallel, inductance is the same value. When leads are connected in series, inductance is four times the value
2. DCR is for each winding. When leads are connected in parallel, DCR is half the value. When leads are connected in series, DCR is twice the value
3. SRF measured using an Agilent/HP 4191A or equivalent. When leads are connected in parallel, SRF is the same value
4. Leakage Inductance is for L1 and is measured with L2 shorted
5. DC current at 25 ℃ that causes the specified inductance drop from its value without current. It is the sum of the current flowing in both windings
6. Equal current when applied to each winding simultaneously that causes a 40 ℃ temperature rise from 25 ℃ ambient. This information is for reference only and does not represent absolute maximum ratings
7. Maximum current when applied to one winding that causes a 40 ℃ temperature rise from 25 ℃ ambient. This information is for reference only and does not represent absolute maximum ratings
8. Electrical specifications at 25 ℃
9. Ambient temperature –40 ℃ to +125 ℃ with (40 ℃ rise) Irms current
10. Maximum part temperature +165 ℃ (ambient + temp rise)
11. Storage temperature Component: –40 ℃ to +165 ℃
12. Tape and reel packaging: –40 ℃ to +80 ℃
13. Winding to winding isolation 100 Vrms, one minute
14. Resistance to soldering heat Max three 40 second reflows at +260 ℃ , parts cooled to room temperature between cycles
15. Packaging 1000/7 ″ reel; 3500/13 ″ reel

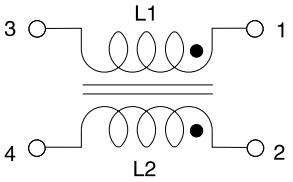
PHYSICAL CHARACTERISTICS & WINDING:

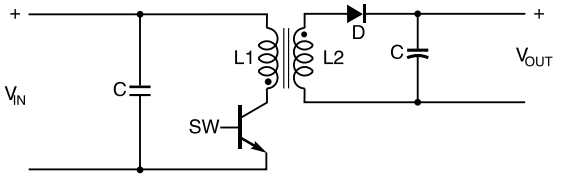
Dimensions are in mm



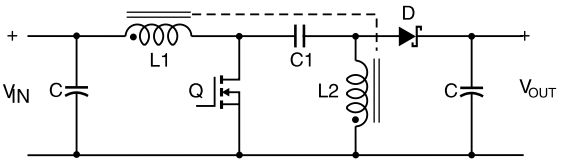


Recommended
Land Pattern

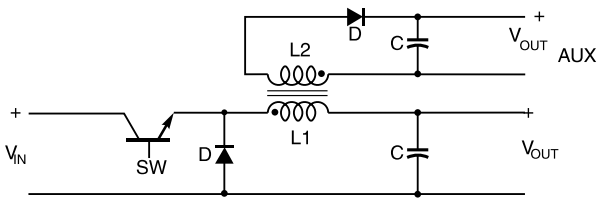




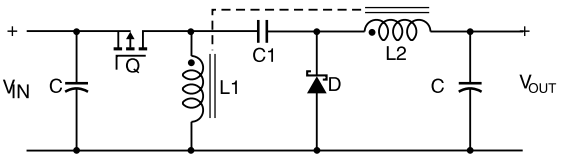
Typical Flyback Converter



Typical SEPIC schematic



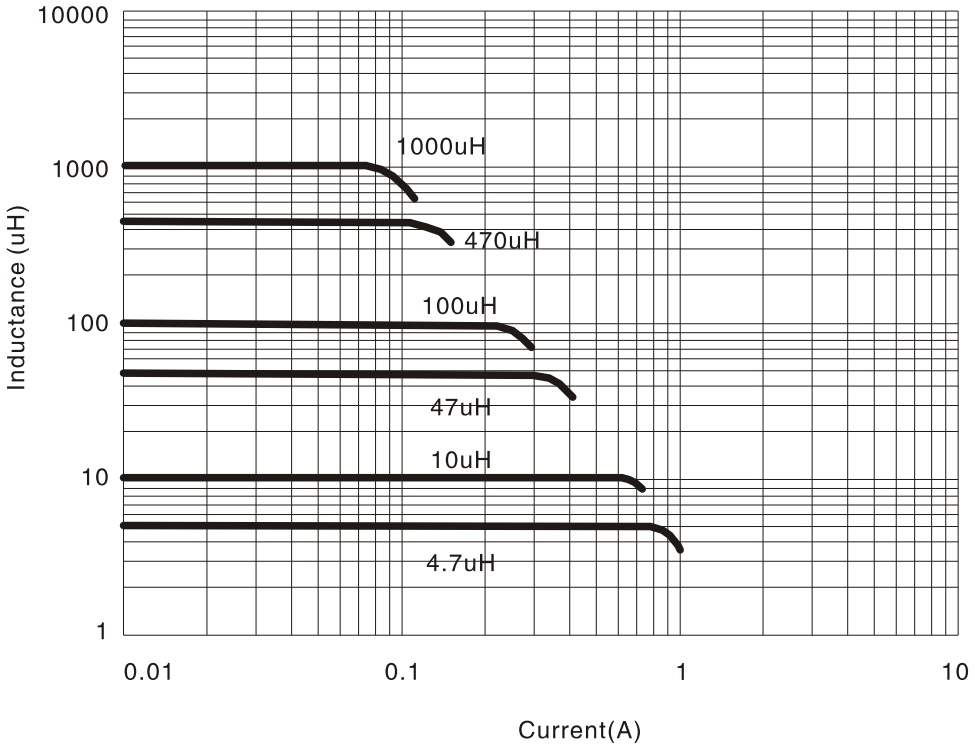
Typical Buck Converter with auxiliary output



Typical Zeta schematic

PERFORMANCE CURVE:

TYPICAL L VS CURRENT



TYPICAL L VS FREQUENCY