SMD Power chokes- SPD Series

SPD series chokes For High Current Use

Features

1.Shielded construction.

2.High current rating up to DC 50Amp

3.High frequency range up to 5.0MHz

4.Ultra low buzz noise, due to composite construction.

Applications

Netebook/Deaktop/Server applications

low profile high current power supplise

Battery powered devices

DC/DC Converter for field programmable gate arrary (FPGA)

Product Identification

SPD 0735 – 1R2 M

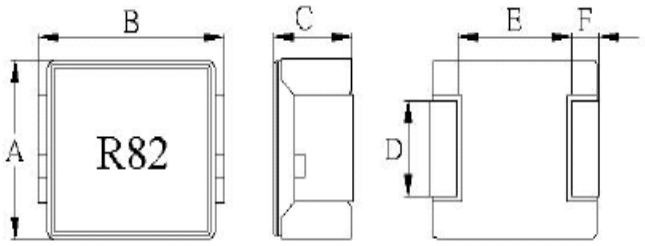
SPD: SERIES NAME

0735:DIMENSION SIZE CODE

1R2: INDUCTANCE CODE.

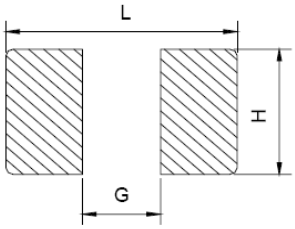
M: TOLERANCE, J=5% K=10% M=20%.

Dimensions (mm)



SERIES	A	B	C	D	E	F
SPD0718	6.8 max	7.3 max	1.8 max	3.2±0.2	4.2 ref	1.3 ref
SPD0724	6.8 max	7.3 max	2.4 max	3.2±0.2	4.2 ref	1.3 ref
SPD0730	6.8 max	7.3 max	3.0max	3.2±0.3	4.2 ref	1.3 ref
SPD0735	6.8 max	7.3 max	3.5max	3.2±0.2	4.2 ref	1.3 ref
SPD1040	10.2 max	11.5 max	4.0max	4.1±0.3	6.3 ref	2.2ref
SPD1338	12.9 max	13.8max	3.8max	4.7±0.3	8.4ref	2.4ref
SPD1350	12.9 max	13.8max	5.0max	4.7±0.3	8.4ref	2.4ref
SPD1367	12.9 max	13.8max	6.7max	4.7±0.3	8.4ref	2.4ref

RECOMMENDER P.C.B LAYOUT



SERIES	L	H	G
SPD0718	7.4	3.45	3.7
SPD0724	7.4	3.45	3.7
SPD0730	7.4	3.45	3.7
SPD0735	7.4	3.45	3.7
SPD1040	12.0	4.80	5.0
SPD1338	13.8	5.15	7.6
SPD1350	13.8	5.15	7.6
SPD1367	13.8	5.15	7.6

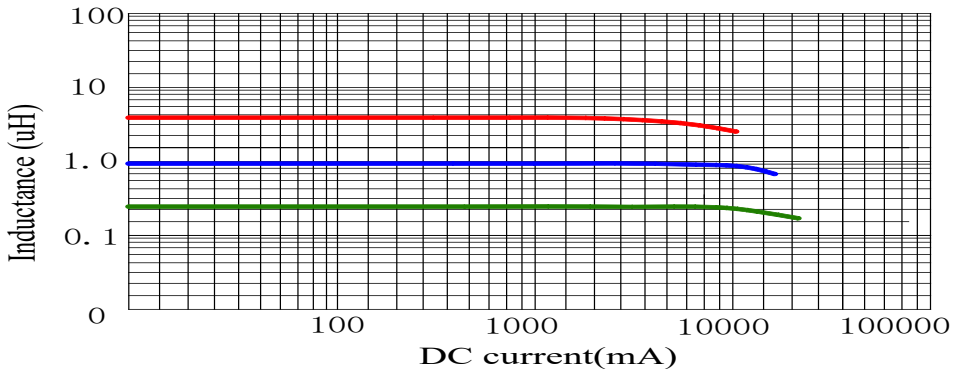
SPD 0718 Series

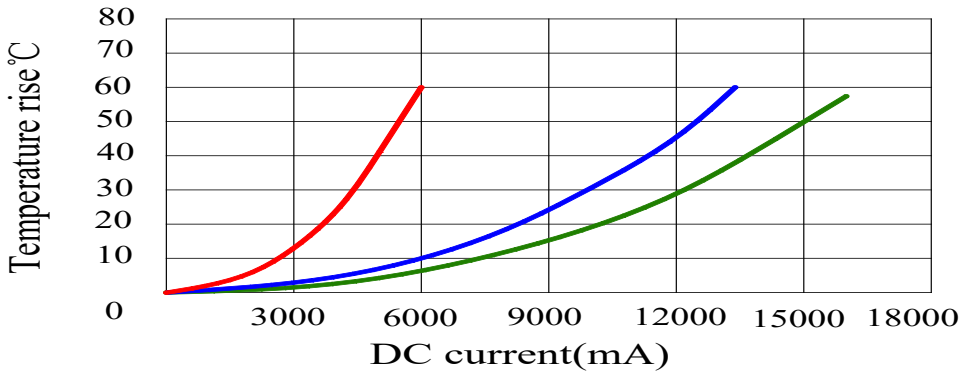
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD0718-R33M	0.33	7.00	12.00	18.00
SPD0718-R68M	0.68	13.90	9.00	15.00
SPD0718-R82M	0.82	15.90	8.00	14.00
SPD0718-1R0M	1.00	18.50	7.00	11.50
SPD0718-1R5M	1.50	34.00	6.00	10.00
SPD0718-2R2M	2.20	46.00	5.00	8.50
SPD0718-3R3M	3.30	60.10	3.25	6.00

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed 125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





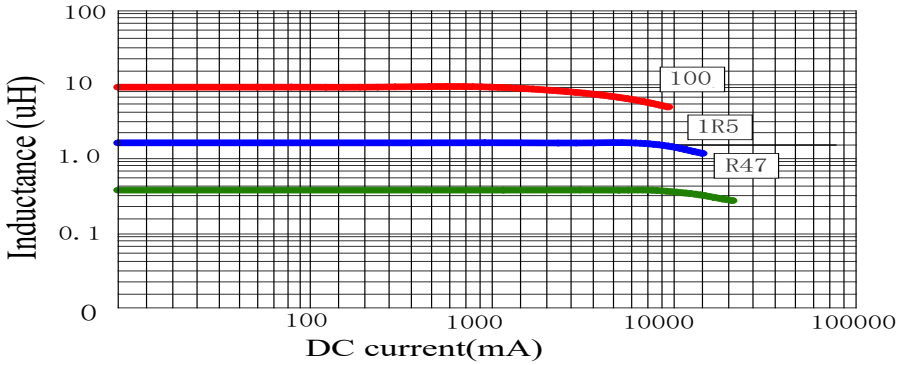
SPD 0724 Series

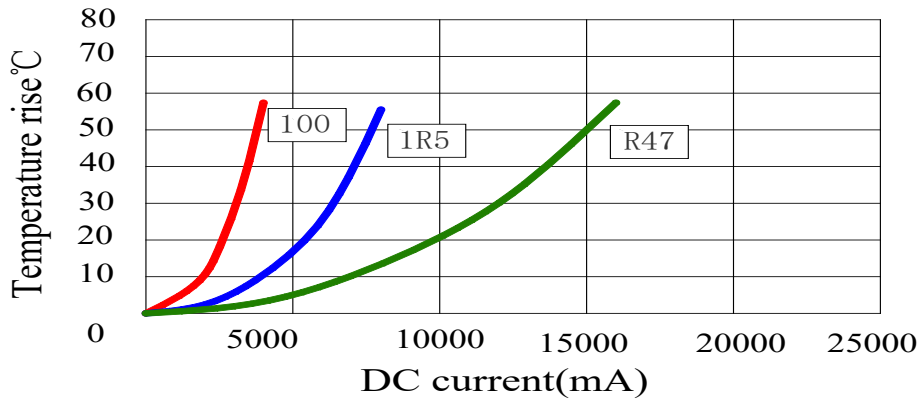
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD0724-R47M	0.47	6.50	13.50	21.00
SPD0724-R56M	0.56	7.50	12.00	19.00
SPD0724-R68M	0.68	9.40	11.00	18.00
SPD0724-R82M	0.82	11.80	10.00	17.00
SPD0724-1R0M	1.00	14.20	9.00	16.00
SPD0724-1R5M	1.50	21.20	7.50	13.00
SPD0724-2R2M	2.20	34.00	6.50	11.00
SPD0724-3R3M	3.30	51.60	5.00	9.00
SPD0724-4R7M	4.70	63.00	4.50	7.00
SPD0724-6R8M	6.80	95.00	3.50	6.00
SPD0724-100M	10.00	129.00	2.50	5.00

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed 125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





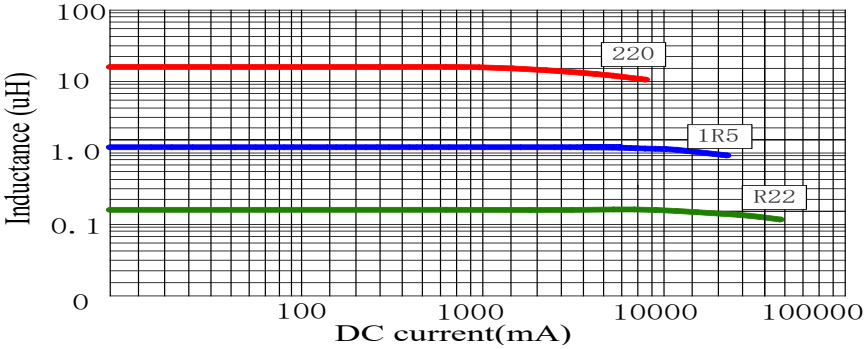
SPD 0730 Series

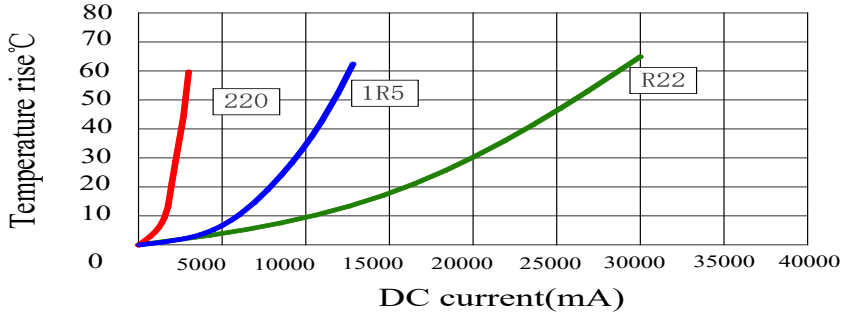
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD0730-R22N	0.22	3.10	22.00	34.00
SPD0730-R33M	0.33	3.90	20.00	28.00
SPD0730-R47M	0.47	4.20	17.50	24.00
SPD0730-R56M	0.56	5.30	15.50	23.00
SPD0730-R68M	0.68	5.50	15.50	22.00
SPD0730-R82M	0.82	8.00	13.00	19.00
SPD0730-1R0M	1.00	10.00	11.00	17.00
SPD0730-1R5M	1.50	15.00	9.00	15.00
SPD0730-2R2M	2.20	20.00	8.00	12.00
SPD0730-2R5M	2.50	22.00	8.00	11.00
SPD0730-3R3M	3.30	30.00	6.00	10.00
SPD0730-4R7M	4.70	40.00	5.00	8.00
SPD0730-5R6M	5.60	54.00	5.00	7.50
SPD0730-6R8M	6.80	60.00	4.50	7.00
SPD0730-8R2M	8.20	68.00	4.00	6.00
SPD0730-100M	10.00	105.00	3.00	5.50
SPD0730-220M	22.00	230.00	2.00	3.00

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





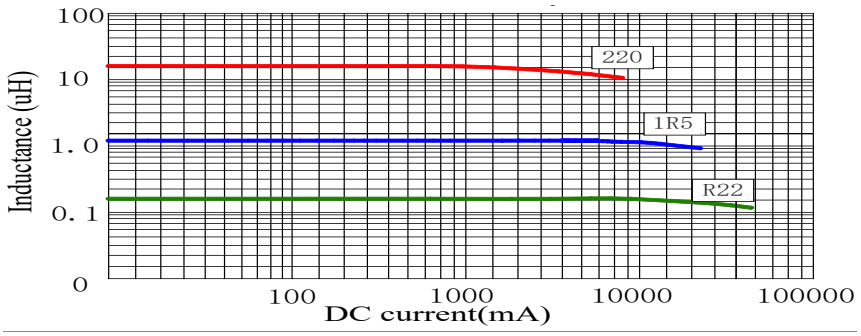
SPD 0735 Series

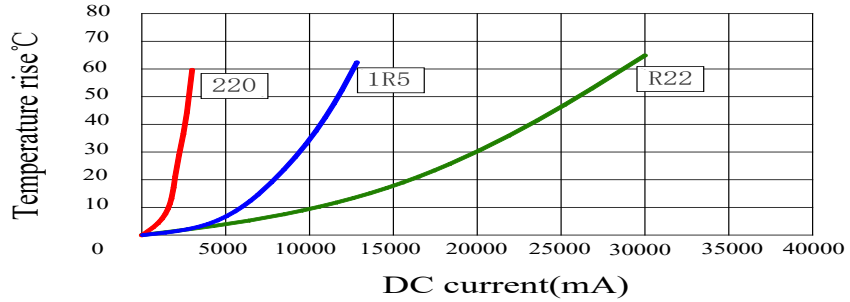
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD0735-R22N	0.22	3.10	22.00	36.00
SPD0735-R33M	0.33	3.90	20.00	30.00
SPD0735-R47M	0.47	4.20	17.50	26.00
SPD0735-R56M	0.56	5.30	15.50	24.00
SPD0735-R68M	0.68	5.50	15.50	23.00
SPD0735-R82M	0.82	8.00	13.00	20.00
SPD0735-1R0M	1.00	10.00	11.00	18.00
SPD0735-1R5M	1.50	15.00	9.00	16.00
SPD0735-2R2M	2.20	20.00	8.00	12.50
SPD0735-2R5M	2.50	22.00	8.00	11.50
SPD0735-3R3M	3.30	30.00	6.00	10.50
SPD0735-4R7M	4.70	40.00	5.50	8.50
SPD0735-5R6M	5.60	54.00	5.00	8.00
SPD0735-6R8M	6.80	60.00	4.50	7.50
SPD0735-8R2M	8.20	68.00	4.00	6.50
SPD0735-100M	10.00	105.00	3.00	6.00
SPD0735-220M	22.00	230.00	2.00	3.50

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





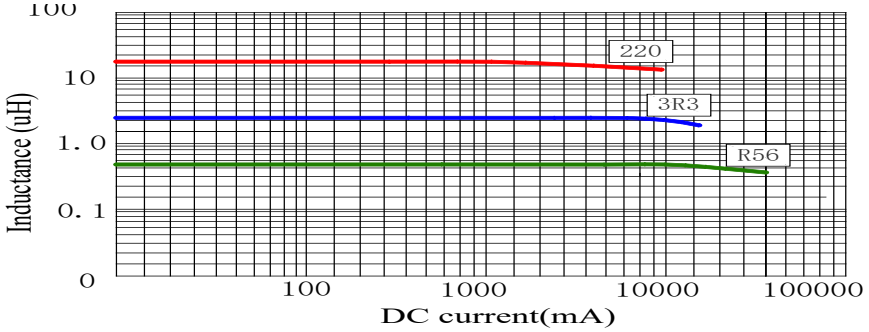
SPD 1040 Series

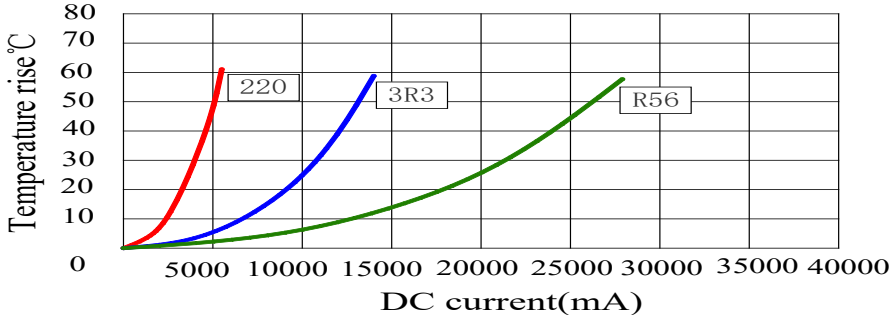
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1040-R56M	0.56	2.50	22.00	40.00
SPD1040-R68M	0.68	3.00	21.00	33.00
SPD1040-R82M	0.82	3.50	20.00	30.00
SPD1040-1R0M	1.00	4.00	18.00	28.00
SPD1040-1R5M	1.50	6.50	16.00	20.00
SPD1040-2R2M	2.20	8.50	13.00	19.00
SPD1040-2R5M	2.50	9.50	12.00	16.00
SPD1040-3R3M	3.30	11.50	11.00	16.00
SPD1040-4R7M	4.70	16.00	8.00	14.00
SPD1040-5R6M	5.60	23.50	8.00	12.00
SPD1040-6R8M	6.80	25.50	7.50	11.00
SPD1040-8R2M	8.20	31.00	7.00	10.00
SPD1040-100M	10.00	42.00	5.00	8.00
SPD1040-220M	22.00	92.00	3.50	6.00

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed 125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





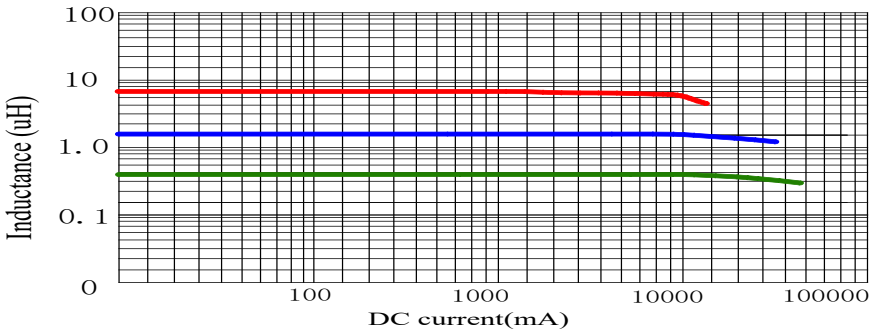
SPD 1338 Series

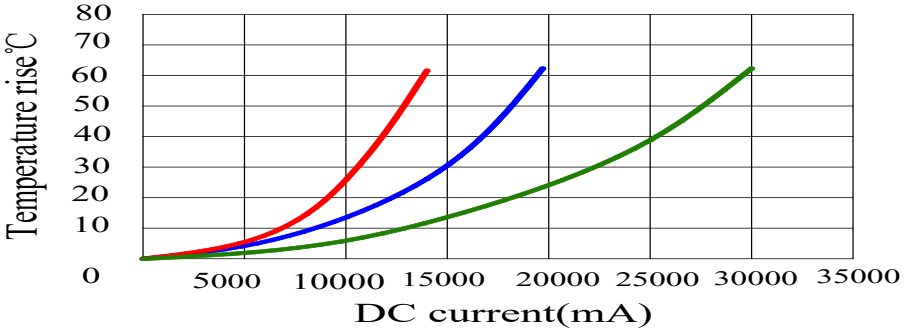
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1338-0R10M	0.1	0.96	43	84
SPD1338-0R15M	0.15	1.2	41	75
SPD1338-0R22M	0.22	1.3	38.5	65
SPD1338-0R33M	0.33	1.5	36.5	62
SPD1338-0R47M	0.47	2	32	55
SPD1338-0R56M	0.56	2.2	30	52
SPD1338-0R60M	0.6	2.3	29	51
SPD1338-0R68M	0.68	2.5	28	49
SPD1338-0R82M	0.82	3	25	44
SPD1338-1R0M	1	3.5	24	40
SPD1338-1R5M	1.5	5.5	19	35
SPD1338-1R8M	1.8	7	16.5	30
SPD1338-2R2M	2.2	8	16	29
SPD1338-3R3M	3.3	12	12	27
SPD1338-3R6M	3.6	13	11	26
SPD1338-4R7M	4.7	16	10	24
SPD1338-5R6M	5.6	18	9.5	19
SPD1338-6R8M	6.8	22	9	18
SPD1338-8R2M	8.2	28	8.5	16
SPD1338-100M	10	34	7	14

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





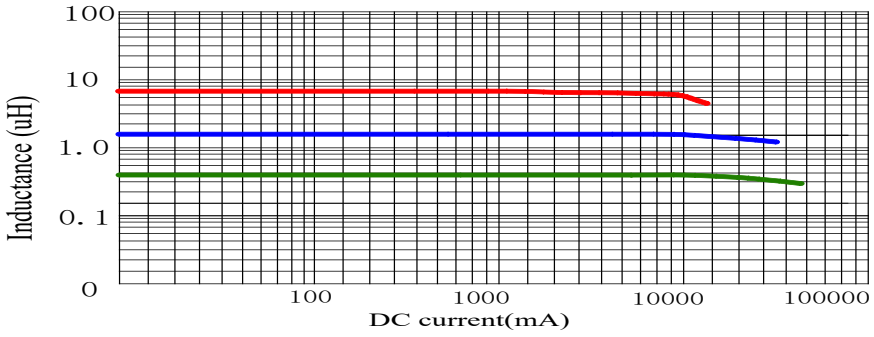
SPD 1338 Series

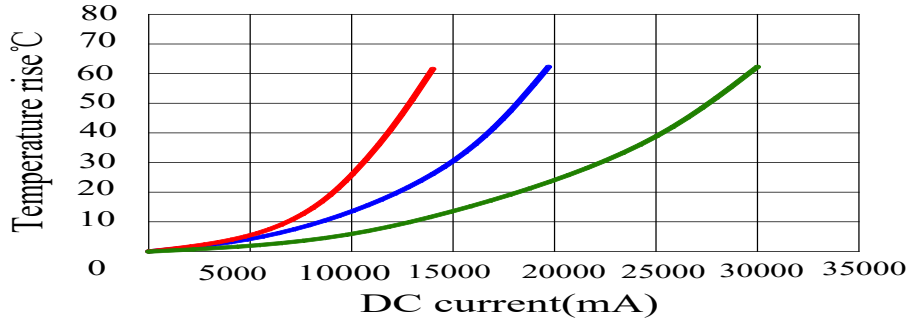
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @ 0 Adc	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1338-R47M	0.47	2.00	25.00	48.00
SPD1338-R56M	0.56	2.30	24.00	47.00
SPD1338-R82M	0.82	3.00	23.00	39.00
SPD1338-1R0M	1.00	3.50	22.00	38.00
SPD1338-2R2M	2.20	8.00	16.00	25.00
SPD1338-3R3M	3.30	12.00	12.00	22.00
SPD1338-4R7M	4.70	15.00	10.00	18.00
SPD1338-5R6M	5.60	18.00	9.50	16.00
SPD1338-6R8M	6.80	22.00	9.00	14.00

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





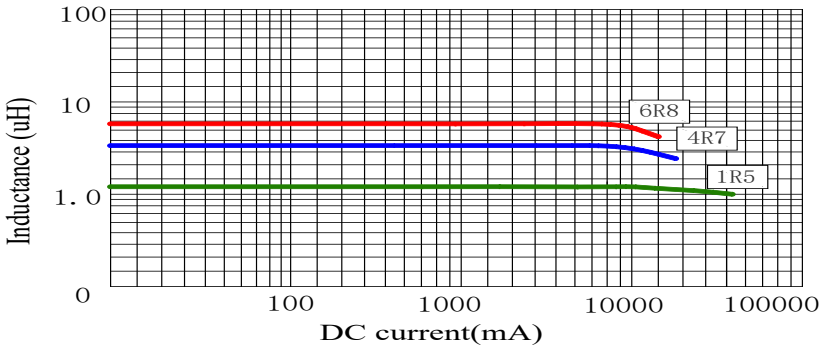
SPD 1350 Series

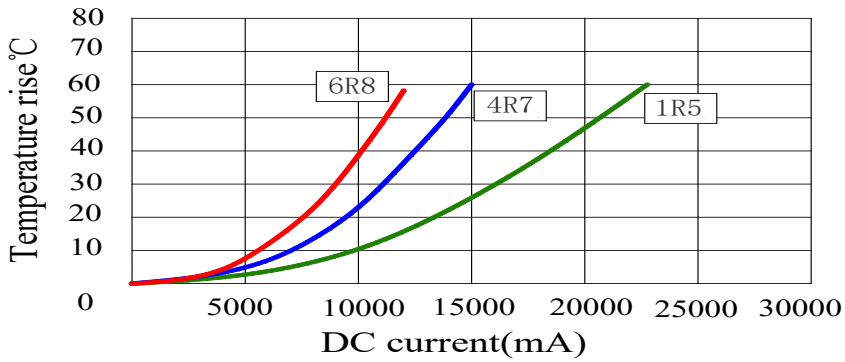
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1350-0R10M	0.1	0.6	55	118
SPD1350-0R22M	0.22	0.8	51	110
SPD1350-0R33M	0.33	1.1	42	80
SPD1350-0R47M	0.47	1.3	38	65
SPD1350-0R56M	0.56	1.5	36	55
SPD1350-0R68M	0.68	1.7	34	54
SPD1350-0R82M	0.82	2.3	31	53
SPD1350-1R0M	1	2.5	29	50
SPD1350-1R5M	1.5	4.1	23	48
SPD1350-1R8M	1.8	4.9	20	40
SPD1350-2R2M	2.2	5.5	19	32
SPD1350-3R3M	3.3	9.2	15	32
SPD1350-4R7M	4.7	15	12	27
SPD1350-5R6M	5.6	16.5	11.5	22
SPD1350-6R8M	6.8	18.5	11	21
SPD1350-7R8M	7.8	20.5	10	18
SPD1350-8R2M	8.2	22.5	9.5	18
SPD1350-100M	10	25.5	9	16

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed 125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves





SPD 1350 Series

Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @ 0 Adc	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1350-1R5M	1.5	4.3	18.0	35.0
SPD1350-2R2M	2.2	6.3	17.0	28.0
SPD1350-4R7M	4.7	15.0	11.0	21.0
SPD1350-5R6M	5.6	17.6	10.5	19.0
SPD1350-6R8M	6.8	19.8	10.0	18.0

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
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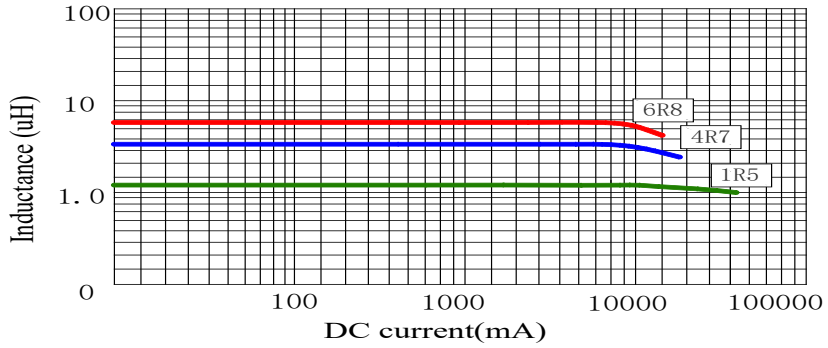
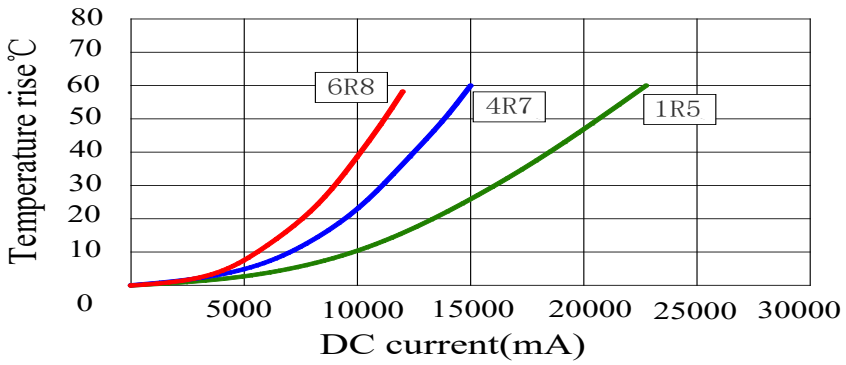
Typical Performance Curves





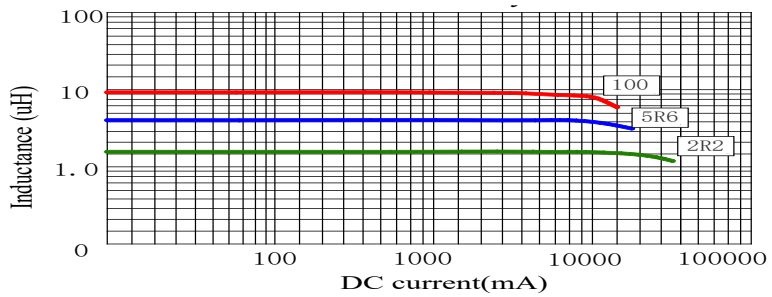
SPD 1367 Series

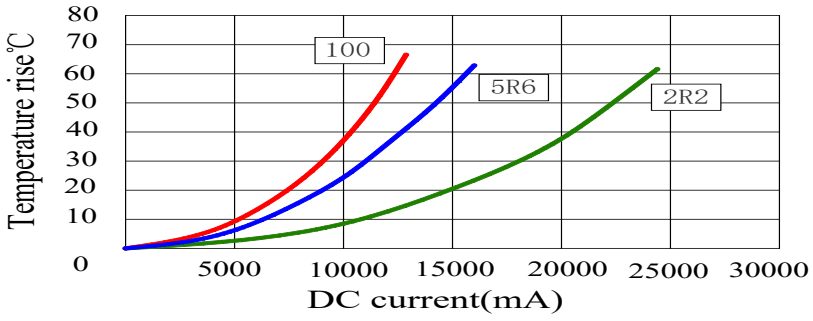
Electrical Characteristics

Part Number	Inductance L0 (uH)±20% @200KHz/0.25V	DCR (mΩ) max.	I rms (A) typ.	I sat (A) typ.
SPD1367-0R10M	0.10	0.5	60	120
SPD1367-0R15M	0.15	0.6	55	118
SPD1367-0R22M	0.22	0.7	53	112
SPD1367-0R3M	0.30	0.8	48	72
SPD1367-0R33M	0.33	1.0	46	65
SPD1367-0R4M	0.40	1.0	44	64
SPD1367-0R47M	0.47	1.2	41	63
SPD1367-0R56M	0.56	1.4	37	62
SPD1367-0R68M	0.68	1.6	35	60
SPD1367-0R82M	0.82	1.9	33	50
SPD1367-1R0M	1.00	2.0	32	49
SPD1367-1R2M	1.20	2.5	30	48
SPD1367-1R5M	1.50	3.0	27	45
SPD1367-1R8M	1.80	3.8	24	42
SPD1367-2R2M	2.20	4.2	22	40
SPD1367-3R3M	3.30	6.8	18	35
SPD1367-4R7M	4.70	11.2	13.5	30
SPD1367-5R6M	5.60	11.5	13.5	26.5
SPD1367-6R8M	6.80	14.0	11.5	16.5
SPD1367-8R2M	8.20	15.5	10.5	16
SPD1367-100M	10.00	18.5	10	15.5
SPD1367-220M	22.00	40.0	5	8

Note:
(1). All test data is referenced to 25℃ ambient.
(2). Operating Temperature Range-55℃ to +125℃.
(3). DC current(A)that will cause an approximate△T of 40℃.
(4). DC current(A)that will cause Lo to drop approximately 20%.
(5). The part temperature(ambient + temp rise)should not exceed
125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified in the end application.

Typical Performance Curves

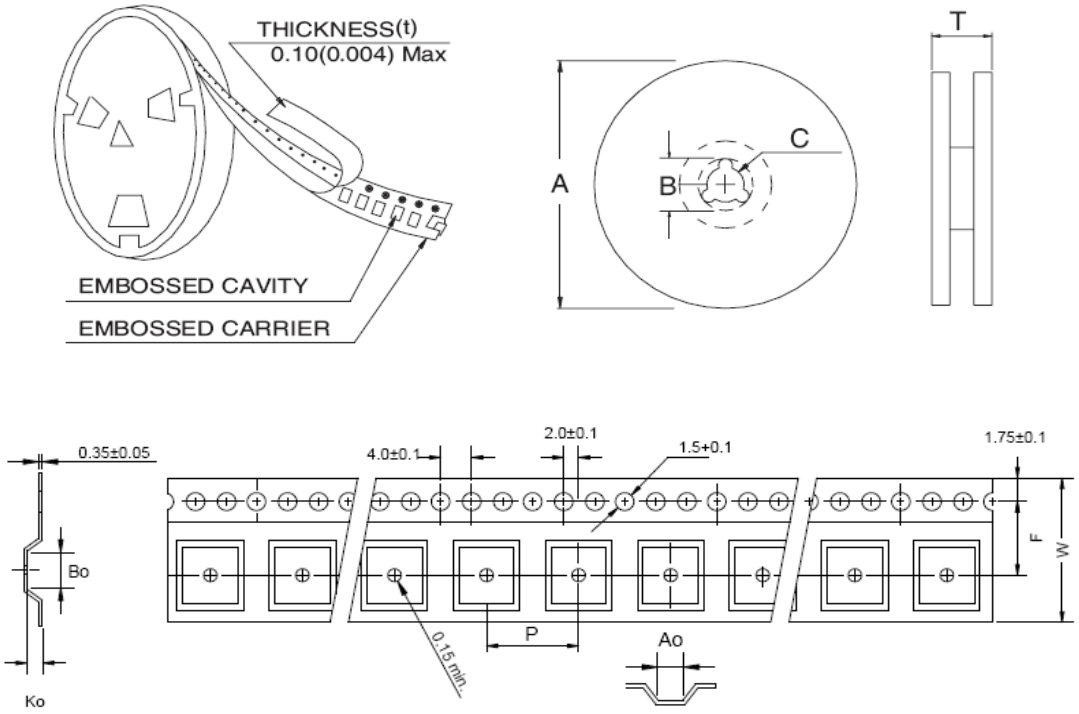




SMD Power chokes- SPD Series

PACKAGING

1.Configuration.



2.Dimension in mm

TYPE	A	B	C	T
12mm	330	100	21±0.8	16.4
16mm	330	100	21±0.8	20.4
24mm	330	100	21±0.8	28.4
32mm	330	100	21±0.8	36.4

TYPE	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	P(mm)	PCS/REEL
SPD0718	7.6±0.1	7.6±0.1	2.6±0.1	16±0.3	12±0.1	1000
SPD0724	7.6±0.1	7.6±0.1	2.6±0.1	16±0.3	12±0.1	1000
SPD0730	7.6±0.1	7.6±0.1	3.8±0.1	16±0.3	12±0.1	1000
SPD0735	7.6±0.1	7.6±0.1	3.8±0.1	16±0.3	12±0.1	1000
SPD1040	10.5±0.1	11.3±0.1	4.5±0.1	24±0.3	16±0.1	800
SPD1338	13.2±0.1	13.8±0.1	4.0±0.1	24±0.3	16±0.1	800
SPD1350	13.2±0.1	13.8±0.1	5.0±0.1	24±0.3	16±0.1	500
SPD1367	13.2±0.1	13.8±0.1	7.4±0.1	24±0.3	16±0.1	250