

SPA02 Series Shielded Power Inductors



Features

- AEC-Q200 qualified
- Magnetically shielded construction
- Ideal inductors for DC-DC conversion
- Low profile with low DCR and high current

Applications

- Power supplies
- Noise filtering and filter chokes
- DC-DC converters, etc.
- Other various electronic appliances

Environmental Data

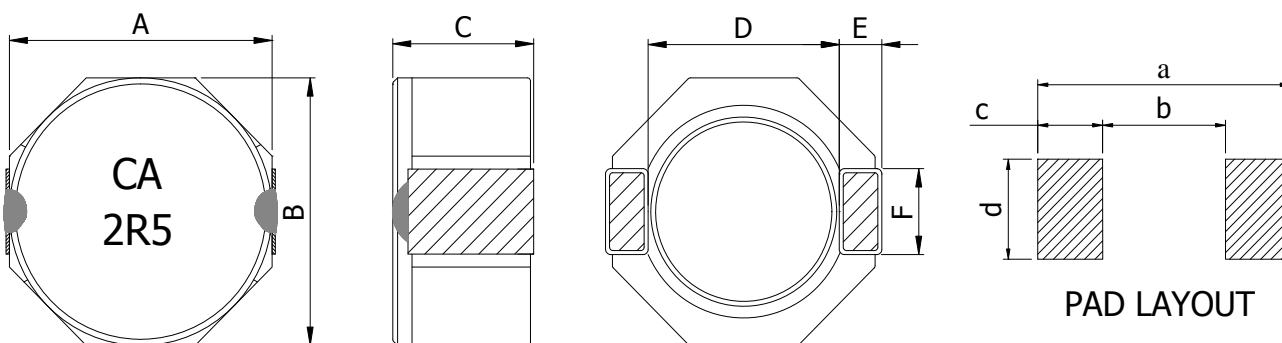
- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (including coil's self-temperature rise)
- Solder reflow temperature: +260°C Max for 10 seconds Max
- Moisture sensitivity level: 1
- RoHS&HF compliance

Packaging

- Supplied in tape and reel packaging, 1500pcs(SPA02-8028), 1200pcs(SPA02-8038), 1000pcs(SPA02-8043), 800pcs(SPA02-8058), per 13-inch reel

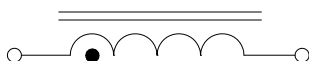


Mechanical Dimension (Unit: mm/inches)



Type	A	B	Max.	Nom.	Nom.	Nom.	a	b	c	d
			C	D	E	F				
SPA02-8028	8.0±0.3	8.0±0.3	3.1	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.122	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8038	8.0±0.3	8.0±0.3	4.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.157	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8043	8.0±0.3	8.0±0.3	4.5	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.177	0.248	0.047	0.099	0.398	0.240	0.079	0.110
SPA02-8058	8.0±0.3	8.0±0.3	6.0	6.3	1.2	2.5	10.1	6.1	2.0	2.8
	0.315±0.012	0.315±0.012	0.236	0.248	0.047	0.099	0.398	0.240	0.079	0.110

Electrical Schematic



Part Number Description

SPA02 - 8028 2R5 N
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

SPA02 Series Shielded Power Inductors

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80282R5N	2.5	17.0	22.0	5.00	4.80	CA2R5
SPA02-80283R3N	3.3	22.0	28.0	4.50	4.20	CA3R3
SPA02-80284R7N	4.7	26.0	33.8	3.80	3.70	CA4R7
SPA02-80287R3N	7.3	40.0	52.0	3.00	3.20	CA7R3
SPA02-8028100M	10	55.0	71.0	2.70	2.35	CA100
SPA02-8028150M	15	70.0	91.0	2.20	1.85	CA150
SPA02-8028220M	22	105	135	1.80	1.45	CA220
SPA02-8028330M	33	160	208	1.50	1.30	CA330
SPA02-8028470M	47	210	273	1.25	1.00	CA470
SPA02-8028680M	68	310	403	1.00	0.90	CA680
SPA02-8028101M	100	410	533	0.90	0.75	CA101
SPA02-8028151M	150	630	820	0.75	0.65	CA151
SPA02-8028181M	180	680	880	0.65	0.55	CA181
SPA02-8028221M	220	870	1120	0.55	0.50	CA221

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80381R8N	1.8	12.0	15.6	7.00	6.80	CA1R8
SPA02-80382R5N	2.5	14.0	17.5	6.50	6.00	CA2R5
SPA02-80383R5N	3.5	17.0	24.0	5.00	5.20	CA3R5
SPA02-80384R7N	4.7	22.0	29.0	4.60	4.40	CA4R7
SPA02-80386R0N	6.0	24.0	32.0	4.20	4.00	CA6R0
SPA02-8038100M	10	43.0	48.0	3.00	3.20	CA100
SPA02-8038150M	15	61.0	67.0	2.75	2.50	CA150
SPA02-8038220M	22	86.0	105	2.30	2.00	CA220
SPA02-8038330M	33	128	157	1.75	1.60	CA330
SPA02-8038470M	47	163	189	1.52	1.42	CA470
SPA02-8038680M	68	232	290	1.30	1.08	CA680
SPA02-8038101M	100	355	410	1.05	0.88	CA101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
- Test frequency and voltage:100KHz,0.1Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop approximately 35%.
- Heat rated current(Irms) will cause the coil temperature rise approximate Δt of 40°C.

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Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80431R2N	1.2	9.0	12.2	8.0	6.2	CA1R2
SPA02-80432R0N	2.0	11	14.0	7.0	5.5	CA2R0
SPA02-80433R3N	3.3	13	17.0	6.2	5.0	CA3R3
SPA02-80433R9N	3.9	15	19.0	5.9	4.5	CA3R9
SPA02-80434R7N	4.7	17	22.0	5.6	4.1	CA4R7
SPA02-80436R8N	6.8	23	30.0	4.4	3.9	CA6R8
SPA02-8043100M	10	29	36.0	4.0	3.2	CA100
SPA02-8043150M	15	42	53.0	2.9	2.3	CA150
SPA02-8043220M	22	60	75.0	2.6	1.8	CA220
SPA02-8043330M	33	100	125	2.2	1.4	CA330
SPA02-8043470M	47	140	180	1.8	1.3	CA470
SPA02-8043680M	68	190	240	1.5	1.0	CA680
SPA02-8043101M	100	290	360	1.3	0.8	CA101

Electrical Characteristic

Part Number	Inductance L0(uH)	DCR (mΩ)Typ.	DCR (mΩ)Max.	Isat (A)Max.	Irms (A)Max.	Marking
SPA02-80582R8N	2.8	12.0	15.0	4.7	6.9	CA2R8
SPA02-80583R9N	3.9	13.0	16.3	4.1	6.3	CA3R9
SPA02-80585R0N	5.0	14.0	17.5	3.8	6.0	CA5R0
SPA02-80586R2N	6.2	16.0	20.0	3.3	5.5	CA6R2
SPA02-8058100M	10	22.0	25.6	2.6	4.5	CA100
SPA02-8058150M	15	27.0	36.3	2.3	3.6	CA150
SPA02-8058220M	22	39.0	45.3	1.7	3.3	CA220
SPA02-8058330M	33	52.0	65.3	1.5	2.7	CA330
SPA02-8058470M	47	75.0	90.5	1.2	2.2	CA470
SPA02-8058680M	68	104	130	1.0	1.7	CA680
SPA02-8058101M	100	140	175	0.8	1.4	CA101

- Tolerance of Inductance:K= ±10%,M= ±20%,N= ±30%.
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