

Automotive Molded Inductors With E-Field Shield



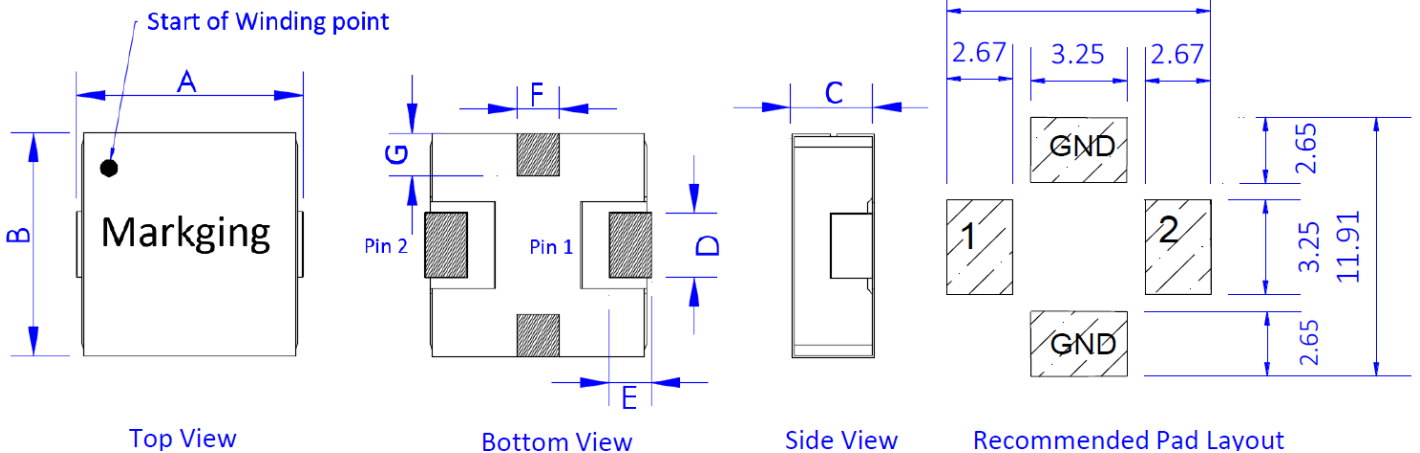
PART NUMBERING SYSTEM

(AEC-Q200)

SEP	1004ECS	—	100	—	M	—	LF	—	A
TYPE	DIMENSIONS		INDUCTANCE		Tolerance		LEAD FREE		AUTO

SHAPES AND DIMENSIONS

UNIT : mm



Top View

Bottom View

Side View

Recommended Pad Layout

A=11.1±1.0 B=10.5±0.5 C=4.2±0.5 D=2.9±0.5 E=2.0±0.5 F=2.2±0.5 G=2.3±0.5 UNIT : mm

FEATURES :

DC current up to 100Amp.

Integrated E-Shield for maximum EMI reduction (connect to the ground) and eliminates need for separate shielding

Suitable for large current DC/DC converters.

Custom design / automotive grade available.

Up to 75V operating voltage and 100 V isolation voltage

AEC-Q200 qualified

Application

Automotive systems : DCU 、 Lighting 、 Audio

DC/DC converter in distributed power systems or VRM applications

Noise suppression for motors (Windshield wipers, Power seats, Power mirrors, HID lighting)

Battery chargers, power supplies

Communication devices.

All specifications are subject to change without notice.

Our specification limits the quality of the component to a single unit. Please ensure the component is thoroughly evaluated in your application circuit.

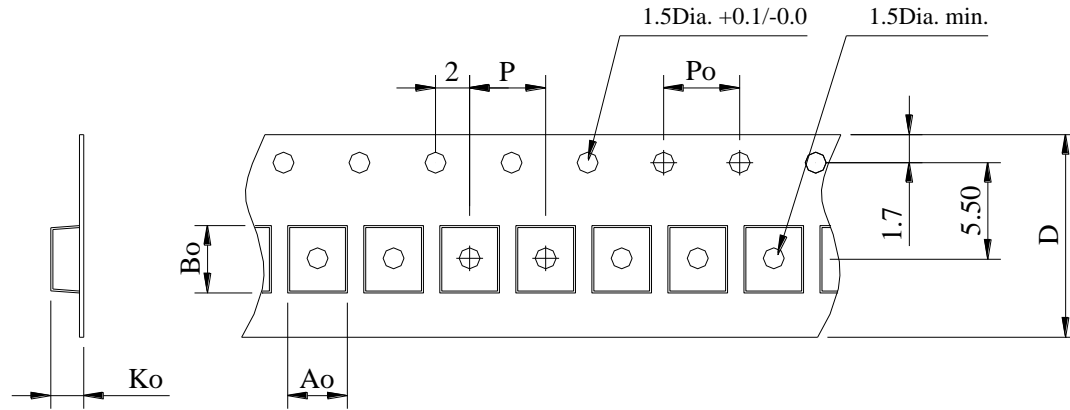
Revised JUNE 2024

SPECIFICATION TABLE

PART NUMBER	INDUCTANCE (μ H)	I _{sat} (A) (Typ.)	I _{rms} (A) (Δ t) 40°C (Typ.)	DCR (m Ω) (Max.)(1-2)	DCR (m Ω) (Max.)(3-4)
SEP1004ECS-R19M-LF-A	0.19 \pm 20%	100.0	43.0	0.90	3.0
SEP1004ECS-R22M-LF-A	0.22 \pm 20%	80.0	40.0	0.96	3.0
SEP1004ECS-R36M-LF-A	0.36 \pm 20%	65.0	31.5	1.4	3.0
SEP1004ECS-R47M-LF-A	0.47 \pm 20%	60.0	30.0	1.6	3.0
SEP1004ECS-R56M-LF-A	0.56 \pm 20%	55.0	28.0	2.0	3.0
SEP1004ECS-1R0M-LF-A	1.0 \pm 20%	41.0	22.0	3.5	3.0
SEP1004ECS-1R5M-LF-A	1.5 \pm 20%	30.0	18.0	5.8	3.0
SEP1004ECS-2R2M-LF-A	2.2 \pm 20%	28.0	16.0	9.0	3.0
SEP1004ECS-3R3M-LF-A	3.3 \pm 20%	25.0	14.0	12.0	3.0
SEP1004ECS-4R7M-LF-A	4.7 \pm 20%	20.0	12.0	16.5	3.0
SEP1004ECS-5R6M-LF-A	5.6 \pm 20%	16.0	10.0	19.3	3.0
SEP1004ECS-6R8M-LF-A	6.8 \pm 20%	15.0	9.0	23.3	3.0
SEP1004ECS-100M-LF-A	10 \pm 20%	13.0	7.0	36.5	3.0
SEP1004ECS-220M-LF-A	22 \pm 20%	9.0	5.0	65.0	3.0
SEP1004ECS-330M-LF-A	33 \pm 20%	7.5	4.5	118.0	3.0
SEP1004ECS-470M-LF-A	47 \pm 20%	5.5	3.6	145.5	3.0

- Testing at 100KHz / 1.0V_{rms} / 25°C
- I_{sat} : DC current at which the inductance drops 30% (typ) from its value without current.
- I_{rms} : Average current for a 40°C temperature rise above 25°C ambient.
Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.
- Operating temperature range -55°C to +155°C. (ambient plus self-temperature rise)
- AEC-Q200 Grade 1
- Lead Free , RoHS / REAH / Halogen Free compliant.

PACKAGING SPECIFICATION



STAYLE	Q'TY (PCS)	DIMENSIONS (m/m)					
		Ao	Bo	Ko	P	Po	D±0.3
13"	800	10.8	12.5	5.4	16	4.0	24