

### Features:

- High current , low DCR , high efficiency.
- Very low acoustic noise and very low leakage flux noise.
- Motor control
- DC/DC converters in distributed power systems
- AEC-Q200 Grade 1 qualified (-40°C to +125°C ambient)

### Applications:

- Shielded construction reduces EMI
- Low profilis, high current power supplies
- Soft saturation.
- DC/DC converter for Field programmable gate Array
- Battery powered device

### Parts code:

**ECS-HCMPI**

Type

**0402Q**

Dimension

**2R2**

Inductance code

**M**

Tolerance: M : ± 20%

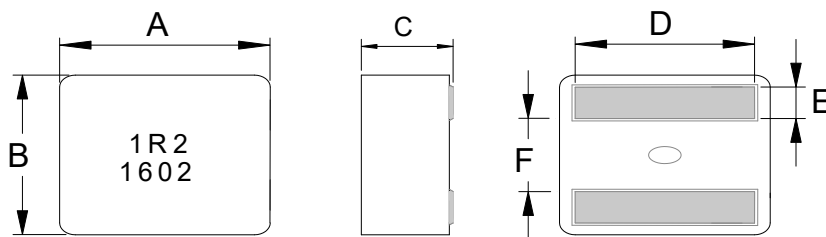
**D**

Date Code

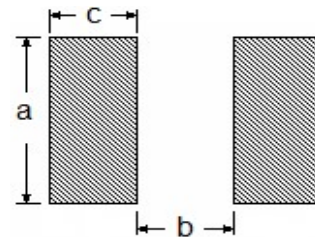
N : ± 30%

PS: Marking: Black.2R2 and 1602(16 YY, 02 WW, follow production date)

### Outline Dimension:



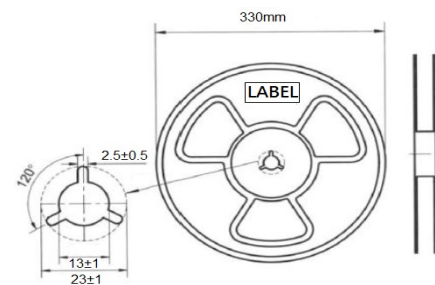
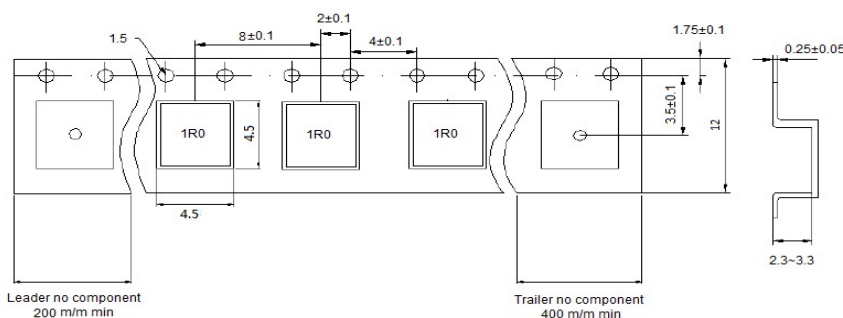
### Recommended Land Pattern:



Dimensions in mm

TYPE	A	B	C	D	E	F
ECS-HCMPI-0402Q	4.1±0.2	4.1±0.2	1.9±0.2	3.4±0.3	0.88±0.2	1.6±0.25
ECS-HCMPI-0403Q	4.1±0.2	4.1±0.2	2.8±0.2	3.4±0.3	0.88±0.2	1.6±0.25

a	b	c
3.8 Typ	1.4 Typ	1.0 Typ
3.8 Typ	1.4 Typ	1.0 Typ



### Package: Q'TY / Reel

ECS-HCMPI-0402Q--3K/pcs

ECS-HCMPI-0403Q--2K/pcs



**ECS Inc.**  
International

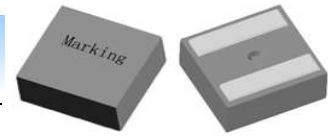
Phone: 913-782-7787

www.ecsxtal.com

Fax: 913-782-6991

email: sales@ecsxtal.com

## Hi-Current Power Inductor ECS-HCMPI-0402Q



4.1x4.1x1.9

### ■ Specifications

ECS-HCMPI-0402Q						
P/N	L	DCR (mΩ)	Isat (A)		Irms (A)	
	( $\mu$ H)	Max	Typ.	Max.	20°C Rise	40°C Rise
ECS-HCMPI-0402Q-R22M	0.22	4.6	19.5	18.8	13.0	16.8
ECS-HCMPI-0402Q-R33M	0.33	5.5	18.0	16.5	12.0	15.5
ECS-HCMPI-0402Q-R36M	0.36	6.3	17.0	15.0	11.0	14.5
ECS-HCMPI-0402Q-R40M	0.40	7.73	15.5	13.5	10.0	14.0
ECS-HCMPI-0402Q-R47M	0.47	8.58	14.5	13.0	9.0	12.5
ECS-HCMPI-0402Q-R56M	0.56	9.3	14.0	12.6	8.5	12.0
ECS-HCMPI-0402Q-R60M	0.60	9.52	13.7	12.3	8.0	11.7
ECS-HCMPI-0402Q-R72M	0.72	11.6	12.0	10.6	7.6	10.5
ECS-HCMPI-0402Q-1R0M	1.00	14.6	9.6	8.8	6.8	9.6

■ Notes: Tolerance: M ( $\pm 20\%$ ), N ( $\pm 30\%$ )

■ Test Frequency: 100 KHz / 0.1V

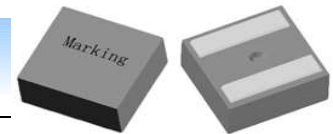
Isat: Based on Inductance decrease 30%

Irms: Based on Temperature increase 40°C

Operating temperature range: -40°C ~ +125°C

Storage Temp: -40°C ~ +125°C

## Hi-Current Power Inductor ECS-HCMPI-0403Q



4.1x4.1x2.8

### ■ Specifications

ECS-HCMPI-0403Q						
P/N	L	DCR (mΩ)	Isat (A)		Irms (A)	
	( $\mu$ H)	Max	Typ.	Max.	20°C Rise	40°C Rise
ECS-HCMPI-0403Q-R47M	0.47	7.26	17.0	15.0	10.0	14.0
ECS-HCMPI-0403Q-1R0M	1.00	12.76	10.0	9.0	7.0	10.0

■ Notes: Tolerance: M ( $\pm 20\%$ ), N ( $\pm 30\%$ )

■ Test Frequency: 100 KHz / 0.1V

Isat: Based on Inductance decrease 30%

Irms: Based on Temperature increase 40°C

Operating temperature range: -40°C ~ +125°C

Storage Temp: -40°C ~ +125°C



**ECS Inc.**  
International

Phone: 913-782-7787

www.ecsxtal.com

Fax: 913-782-6991

email: sales@ecsxtal.com