

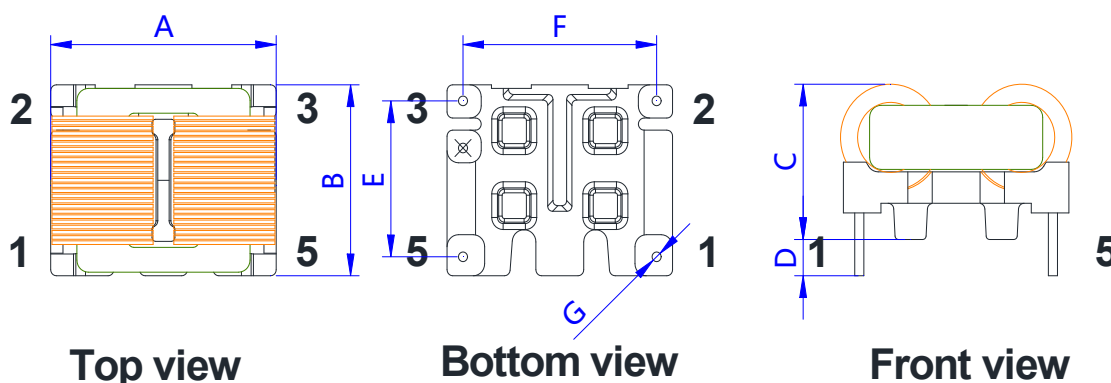
### Features

- \* Small size, low leakage flux due to ESQ core
- \* Low stray capacitance, High attenuation of a wide frequency band
- \* There is no danger of the layer short for the single-layer rolling.
- \* High attenuation to the normal mode noise
- \* It's winding time reduces 90%, and cost is lower than EE、ET、UU、 Toroidal core products.
- \* Standardized structure, more suitable for automatic plug-in operation

### Applications

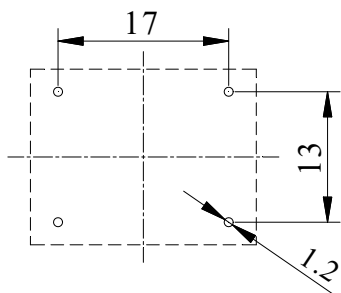
- \* The power adapter
- \* Switching Mode Power Supply
- \* TV/Computer
- \* Industrial Power Supply
- \* Led driver
- \* Automotive Electronic Equipment etc

### Appearance and Dimensions

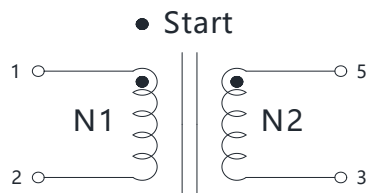


Dimensions(mm)							
Series	A	B	C	D	E	F	G
ESQ1515H-102MIN-C90	22.50max	17.00max	15.50max	3.20±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-252MIN-C63	22.00max	17.00max	15.00max	3.40±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-502MIN-C45	22.00max	17.00max	15.50max	3.50±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-103MIN-C36	22.50max	17.00max	15.50max	3.20±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-153MIN-C27	22.00max	17.00max	15.50max	3.50±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-203MIN-C23	22.50max	17.00max	16.00max	3.20±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-253MIN-C15	21.00max	17.00max	14.50max	3.40±0.5	12.9±0.5	17.0±0.5	0.7±0.1
ESQ1515H-303MIN-C12	21.00max	17.00max	14.00max	3.40±0.5	12.9±0.5	17.0±0.5	0.7±0.1

### Land Pattern Dimensions



### Circuit Diagram



### Product Identification

ESQ - 1515H - 102 MIN - C90

①      ②      ③      ④      ⑤

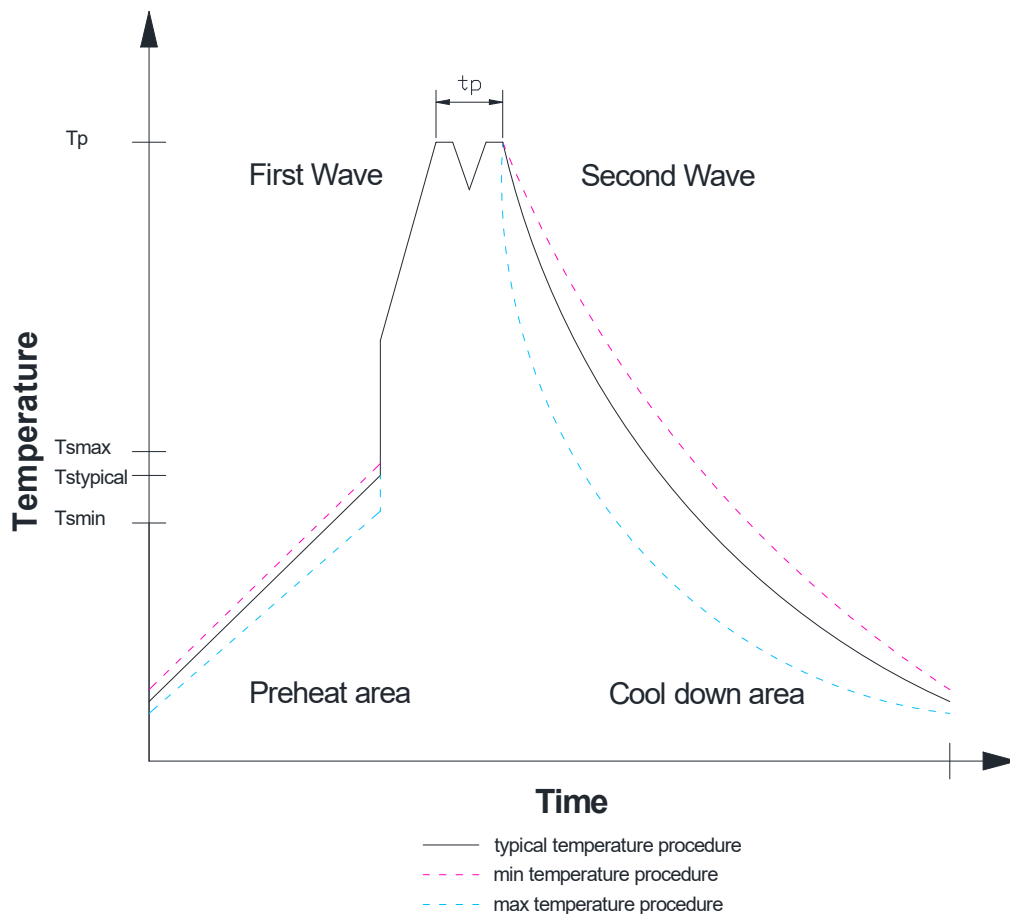
- ① Product Symbol
- ② Dimensions
- ③ Inductance Value (100:10 $\mu$ H; 101:100 $\mu$ H; 102:1mH)
- ④ Inductance Tolerance ( M:20% ; Y:25%; MIN)
- ⑤ Current

### Electrical Characteristics

Part No.	Inductance 1KHz,0.25V	Tol.	DC Resistance max.	Rated Current typ.	Rated Voltage typ.	Hi-pot 2mA 3S
Unit	mH	-	mΩ	A	V	V <sub>ac</sub>
Symbol	L	-	R <sub>DC</sub>	I <sub>RMS</sub>	V <sub>RMS</sub>	-
ESQ1515H-102MIN-C90	1.00	min.	20.0	9.00	250	1,500
ESQ1515H-252MIN-C63	2.50	min.	40.0	6.30	250	1,500
ESQ1515H-502MIN-C45	5.00	min.	80.0	4.50	250	1,500
ESQ1515H-103MIN-C36	10.0	min.	100	3.60	250	1,500
ESQ1515H-153MIN-C27	15.0	min.	130	2.70	250	1,500
ESQ1515H-203MIN-C23	20.0	min.	180	2.35	250	1,500
ESQ1515H-253MIN-C15	25.0	min.	240	1.56	250	1,500
ESQ1515H-303MIN-C12	30.0	min.	350	1.20	250	1,500

## Recommended Soldering Conditions

Classification Wave Soldering Profile:



Profile Feature		Lead-Free Assembly
Preheat Temperature Min	$T_{s \min}$	100 °C
Preheat Temperature Typical	$T_{s \text{ typical}}$	120 °C
Preheat Temperature Max	$T_{s \max}$	130 °C
Preheat Time $t_s$ from $T_{s \min}$ to $T_{s \max}$	$t_s$	70 seconds
Ramp-up Rate	$\Delta T$	150 °C max.
Peak Temperature	$T_p$	250 °C - 260 °C
Time of actual peak temperature	$t_p$	max. 10 seconds max. 5 seconds each wave
Ramp-down Rate, Min		~ 2 K/ second
Ramp-down Rate, Typical		~ 3.5 K/ second
Ramp-down Rate, Max		~ 5K/ second
Time 25 °C to 25 °C		4 minutes

Refer to EN61760-1:2006

## Products Storage

(1) Storage period

Products which inspected in LYEC over 12 months ago should be examined and used, which can be confirmed with inspection No. marked on the container. Solderability should be checked if this period is exceeded.

(2) Storage conditions

Products should be storage in the warehouse on the following conditions:

Temperature: Less than 40°C

Humidity : Less than 75% relative and humidity

No rapid change on temperature and humidity

- (3) Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of electrode, resulting in poor solderability.
- (4) Products should be storage on the palette for the prevention of the influence from humidity, dust and so on.
- (5) Products should be storage in the warehouse without heat shock, vibration, direct sunlight and so on.
- (6) Products should be storage under the airtight packaged condition.