

# SLIM SMD INDUCTOR – EPQH252012H-R SERIES



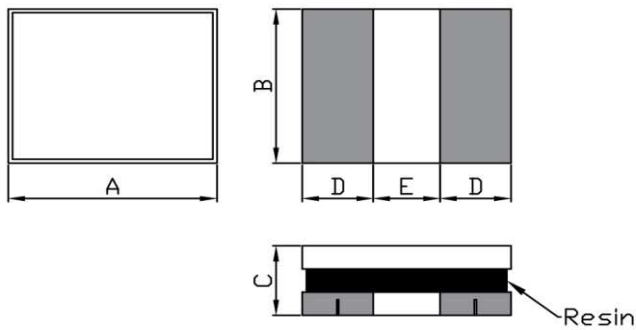
## ●FEATURE

1. Low profile and small size ,low DC resistance

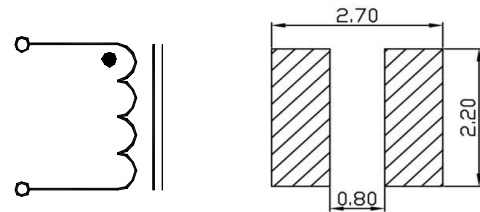
## ●Applications

1. Digital camera, cell phone and other portable used

## ●Shape and Dimension



## ●Schematics and Land Patterns(mm)



A=2.50±0.30 m/m ; B= 2.00±0.30 m/m ; C=1.20 m/m Max; D=0.85 m/m REF. ;  
E=0.80 m/m REF.

## ●Specification

Part Number	L(uH)	DCR(Ω max.)	Isat(A)	Irms(A)
EPQH252012H-R47□-R	0.47	0.040	4.00	3.30
EPQH252012H-1R0□-R	1.0	0.065	3.00	2.90
EPQH252012H-1R5□-R	1.5	0.070	2.50	2.40
EPQH252012H-2R2□-R	2.2	0.120	2.10	1.90
EPQH252012H-4R7□-R	4.7	0.350	1.20	1.10
EPQH252012H-6R8□-R	6.8	0.470	1.05	0.92
EPQH252012H-100□-R	10	0.680	0.80	0.65
EPQH252012H-150□-R	15	1.050	0.70	0.50

Note1. Measurement frequency of Inductance value : at 1MHz

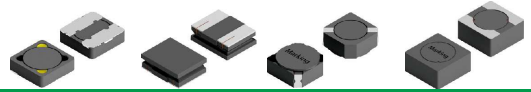
Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. Isat :  $\Delta L/L=30\%$ (typ.)(This indicates the value of current when the inductances is 30% typ. lower than its initial value at D.C. superimposition) ; Irms: D.C. current when at  $\Delta t=40^\circ\text{C}$  (typ.)( $T_a=25^\circ\text{C}$ )

Note4. Ordering Code: Main Inductance: 100 (10uH)

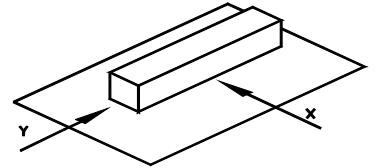
Inductance Tolerance : N:  $\pm 30\%$  ; M:  $\pm 20\%$

Coating code: -R

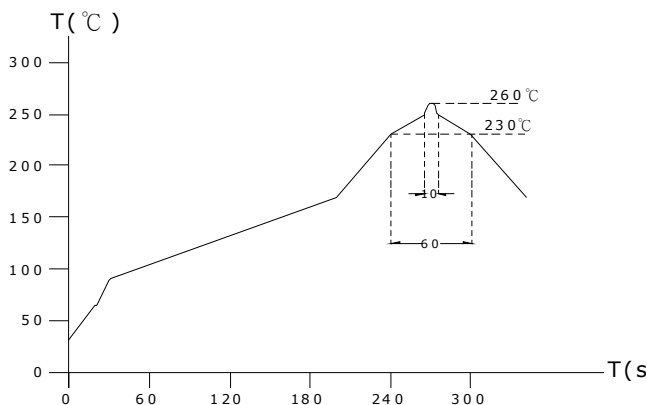


## GENERAL CHARACTERISTICS

1. Operating temperature range:  $-40$  TO  $+125^{\circ}\text{C}$  (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.  
Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.
4. Insulating resistance: Over  $100\text{M}\Omega$  at  $100\text{V D.C.}$  between coil and core.
5. Dielectric strength: No dielectric breakdown at  $100\text{V D.C.}$  for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  ( $-25\sim +80^{\circ}\text{C}$ ).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within  $\pm 5\%$ , after 96 hours in  $90\sim 95\%$  relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration ( $10\sim 55\sim 10$  Hz) with  $1.5\text{mm P-P}$  amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  ( $100\text{G}$ ) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat:  $260^{\circ}\text{C}$ , 10 seconds(See attached recommend reflow)
11. Storage condition: Temperature Range:  $0^{\circ}\text{C} \sim 35^{\circ}\text{C}$  ;  $-40^{\circ}\text{C} \sim 105^{\circ}\text{C}$  (after PCB) , Humidity Range:  $50\% \sim 70\% \text{RH}$
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



### Lead-free heat endurance test



### Lead-free the recommended reflow condition

