

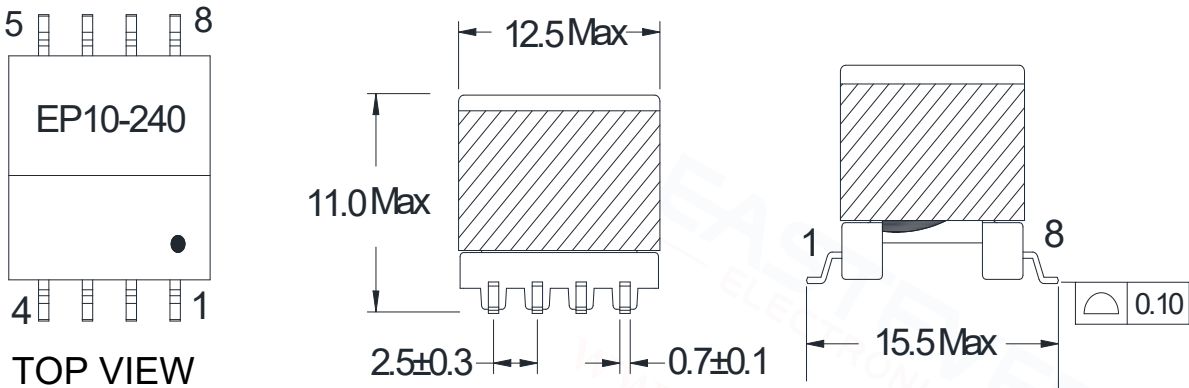
High Frequency Transformer

EP10-240K-00

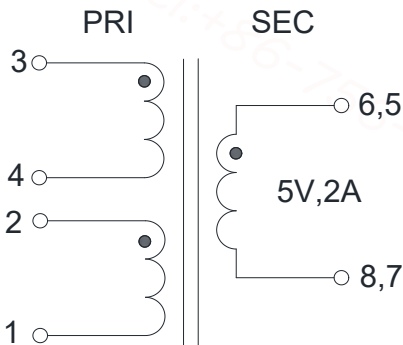
2024-8-22 Rev. 0



A. MECHANICAL(unit:mm)



B. SCHEMATICS



C. ELECTRIC CHARACTERISTICS

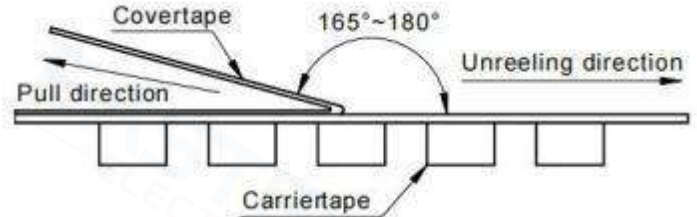
NO.	ITEMS	TEMINAL	SPECIFICATION	TEST CONDITION
1	INDUCTANCE	3-4	24uH±10%	@100KHz/0.1V
2	LEAKAGE INDUCTANCE	3-4	0.75uH Max	@100KHz/0.1V (All other terminals short)
3	DCR	2-1	80mΩ Max	25℃
		3-4	82mΩ Max	
		5,6-7,8	20mΩ Max	
4	TURNS RATIO	3-4:5,6-7,8:2-1=15:5:5(±3%)		@20KHz/1V
5	HI-POT	Pri-Sec		@1.5KVAC/1mA/3Sec

- Electrical Specifications @ 25℃
- In the production of products, all electrical properties and electrical strength must be tested
- RoHS compliant
- Operating Temperature Range: -40℃ to +85℃
- Storage Temperature Range: -55℃ to +105℃

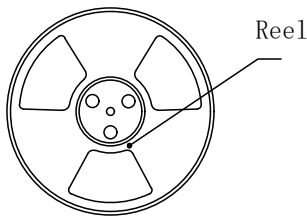
D. PACKINGSPECIFICATIONS

1).Cover Tape Peel Off Condition

Cover tape peel force shall be 10g to 130g.
Reference peel speed $300 \pm 10 \text{ mm/min}$.

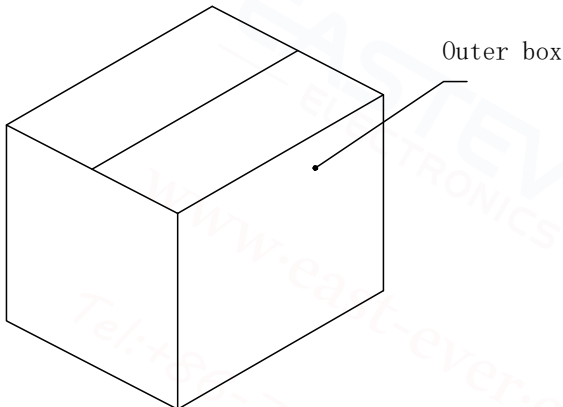


2).Carton Dimensions and Packing Quantity



One Reel=250Pcs

(Label the top of the roll)



One Carton=(250*3)750Pcs

(labeled on the side of the outer box)

- The product is packed in cartons or other materials for easy disassembly and filled around with soft materials;
- Product model, name, quantity, date of delivery and inspection stamp shall be marked on the packing box;
- After the goods are delivered to the customer, the seals of the packing cases shall be in good condition and the boxes shall not be damaged or cracked;

E. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Withstanding voltage test	After test, inductors shall have no evidence of electrical and mechanical damage.	AC voltage of 100v and AC current of 1mA applied between inductor's terminal and core for 3 secs.
Resistance to soldering heat	1. Inductor shall have no evidence of electrical and mechanical damage. 2. Inductance shall not change more than $\pm 5\%$. 3. Q shall not change more than $\pm 20\%$.	a. Temp: $260 \pm 5^\circ\text{C}$ b. Time: 10 ± 1.0 secs
Solderability test	The terminal shall be at least 95% covered with solder.	After fluxing, the terminal shall be dipped in a melted solder bath at $245 \pm 5^\circ\text{C}$ for 4 ± 1.0 secs.
High temperature & high humidity test	The anti-erosion quality of the surface and the specimen's inductance shall not change from the initial value within $\pm 10\%$	a. Test condition 1)Temp.: 85°C , R.H.:85% 2)Time: 144 ± 2 hours b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
Salt spray test		a. Test condition 1)Temp.: $35 \pm 2^\circ\text{C}$ 2)Time: 48 ± 2 hours 3)Salt solution PH: 6.5~7.2 b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
Vibration test	1. Inductance shall be within $\pm 10\%$ of the initial value. 2. Appearance: no damage	a. Frequency: 10 to 55HZ b. Amplitude: 1.5mm c. Direction and time: X, Y and Z directions for 2 hours each.



E1. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Free fall test	No mechanical damage shall be noticed.	Drop 5 times on a concrete floor from 1m the height
Temperature Cycling test	1. Inductance shall be within ± 10% of the initial value 2. Appearance:No damage	a. Test condition 1)Temp.: -55°C,time:30±3min 2)Temp.:+125°C,time:30±3min 3)Cycles times:12cycles b. Measurement methods: The experimental component should be put at normal condition for 2 hours then to measure again after test
High Temperature resistance test		a. Test condition 1)Applied rated current 2)Temp.:85°C±2 °C 3)Test time:1000+24/-0H b. Measurement methods: The experimental component should be put at normal condition for 24 hours then to measure again after test.
Low temperature resistance test		a. Test condition 1)Temp.: -55°C±2°C 2)Test time:1000+24/-0H b. Measurement methods: The experimental component should be put at normal condition for 24 hours then to measure again after test.
We have suggested the storage period of lead-free product should not over 6 months.		



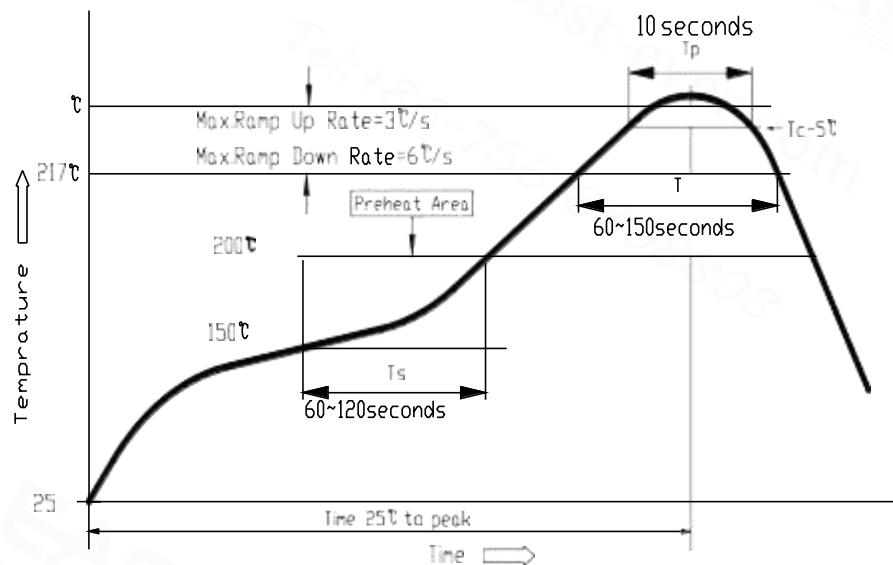
F. SOLDERING CONDITIONS

Applicable soldering process to the products is refl.

F.1 Soldering Materials

Flux: Use rosin-based flux, but not strongly acidic flux (with chlorine exceeding 0.2wt%). Do not use water-soluble flux.

F.2 Reflow Soldering Profile



F.3 Soldering Iron

Reworking with electric soldering iron must preheating at 150°C for 1 minute is required, and do not directly touch the core with the tip of the soldering iron. The reworking soldering conditions are as follows.

- ① Temperature of soldering iron tip: 350°C;
- ② Soldering iron power output: ≤30W;
- ③ Diameter of soldering iron end: ≤1.0mm;
- ④ Soldering time: <3 s