

## Ferrite Shielded Inductor SMD (1.8 x 1.2 x 1.2 mm)

### FEATURES

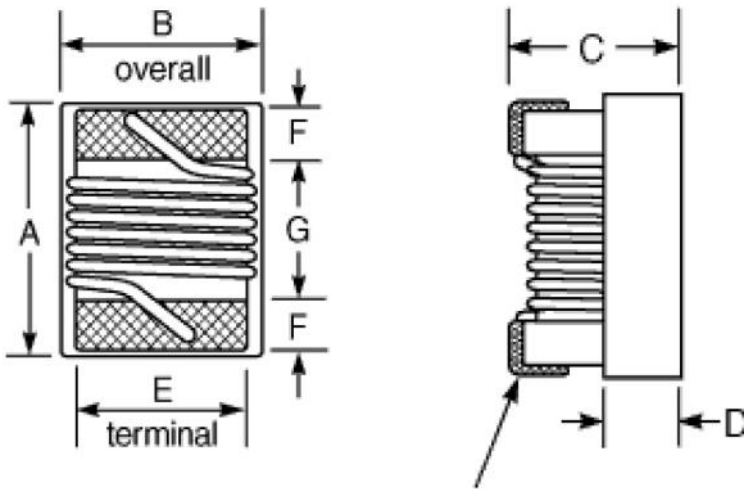
- Miniature size with low profile
- Halogen Free RoHS compliant

### SPECIFICATION

P/N	L ( $\mu$ H)	TEST FREQ. (MHz)	Q Min	SRF (MHz) Min	RDC ( $\Omega$ )Max	I <sub>rms</sub> (mA)Max
TCFL161010WF-R10_	0.10	7.9	12	1150	0.13	1000
TCFL161010WF-R18_	0.18	7.9	12	950	0.20	1000
TCFL161010WF-R22_	0.22	7.9	12	775	0.30	700
TCFL161010WF-R27_	0.27	7.9	12	775	0.30	700
TCFL161010WF-R33_	0.33	7.9	12	725	0.32	600
TCFL161010WF-R39_	0.39	7.9	12	620	0.51	500
TCFL161010WF-R47_	0.47	7.9	12	540	0.62	420
TCFL161010WF-R56_	0.56	7.9	12	600	0.65	400
TCFL161010WF-R68_	0.68	7.9	12	500	1.0	380
TCFL161010WF-R75_	0.75	7.9	12	500	1.3	350
TCFL161010WF-R82_	0.82	7.9	12	500	1.3	350
TCFL161010WF-1R0_	1.0	7.9	12	400	1.5	330
TCFL161010WF-1R2_	1.2	7.9	12	380	1.7	320
TCFL161010WF-1R5_	1.5	7.9	12	300	1.9	310
TCFL161010WF-1R8_	1.8	7.9	12	180	2.2	300
TCFL161010WF-2R2_	2.2	7.9	12	180	2.3	280
TCFL161010WF-2R7_	2.7	7.9	12	150	2.6	250
TCFL161010WF-3R3_	3.3	7.9	12	150	2.9	230
TCFL161010WF-3R9_	3.9	7.9	12	120	3.2	210
TCFL161010WF-4R7_	4.7	7.9	12	100	4.0	200
TCFL161010WF-5R6_	5.6	7.9	15	32	3.6	240
TCFL161010WF-6R8_	6.8	7.9	12	31	3.9	200
TCFL161010WF-8R2_	8.2	7.9	12	26	4.2	190
TCFL161010WF-100_	10	2.5	10	25	4.8	180
TCFL161010WF-150_	15	2.5	15	23	8.5	170
TCFL161010WF-180_	18	2.5	10	22	10	160
TCFL161010WF-220_	22	2.5	10	10	12	100

- I<sub>rms</sub>: Average current for 40°C temperature rise from 25°C ambient (typical)
- Inductance tolerance: Letter at end of part number: J =  $\pm$ 5% ; K =  $\pm$ 10% ; M =  $\pm$ 20%

## DIMENSIONS

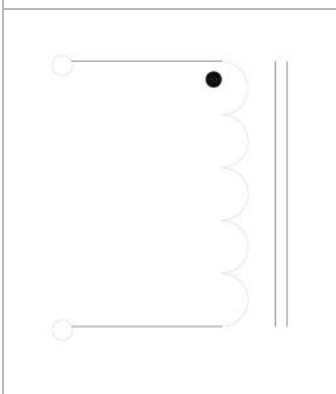


A	1.80	MAX
B	1.20	MAX
C	1.20	MAX
D	0.45	REF
E	0.80	REF
F	0.35	REF
G	0.80	REF

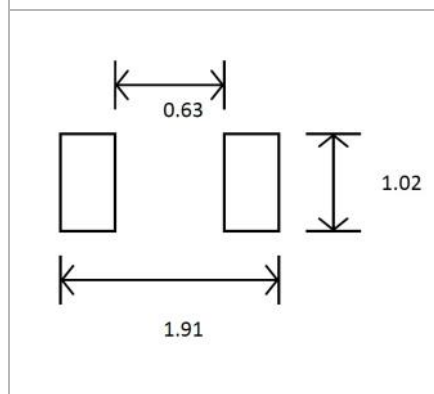
**terminal**

Unit : mm

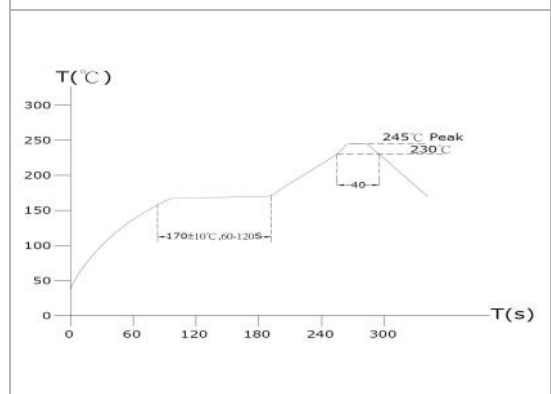
## SCHEMATIC



## SOLDER PATTERN



## REFLOW PROFILE



1. Operating temperature range  
-40 TO + 105°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) 0.5kg
4. Insulating resistance  
Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength  
No dielectric breakdown at 100V 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~+80°C)  
inductance deviation within  $\pm 5.0\%$ , after 96 hours
7. Humidity characteristics (Moisture Resistance)  
Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% 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 (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance  
Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds (See recommend reflow)
11. Storage environment  
Temperature: 0°C~35°C; -40°C~105°C (after mounting on PCB)  
Humidity Range: 50% ~ 70% RH
12. Use components within 12 months.  
If 12 months or more have elapsed, check solderability before use.

