

# Dielectric filter 813MHz Size 11.4x8.55mm

MODEL NO.: TR0028A

REV. NO.:1

## A. MAXIMUM RATING:

1. Input Power Level: 1W max.
2. DC Voltage : 0 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature:-40 °C to +85 °C
5. Input/output impedance: 50 Ω
6. Moisture Sensitive Level: Level 3a (MSL2a)

**Electrostatic Sensitive Device (ESD)**

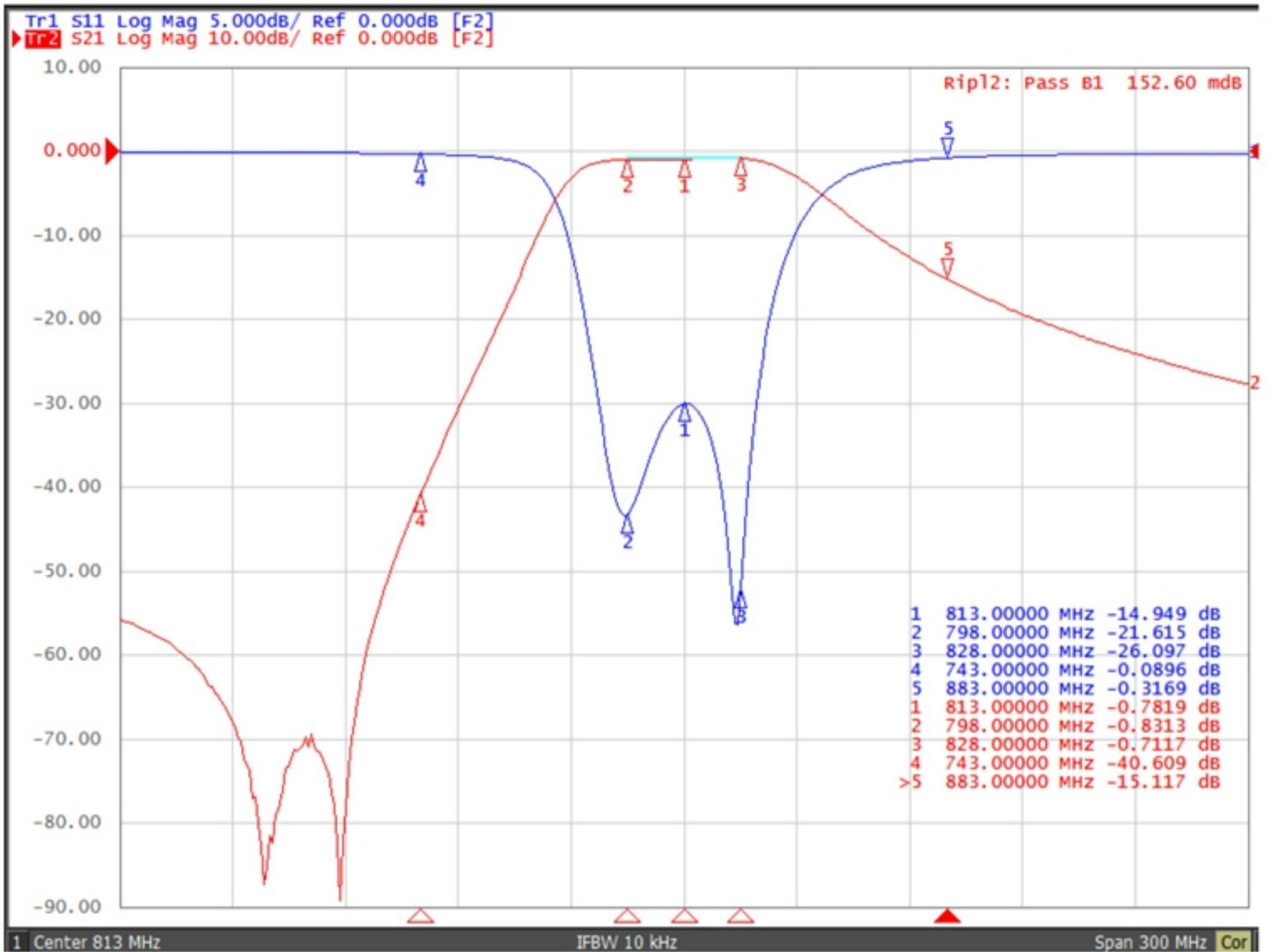
## B. ELECTRICAL CHARACTERISTICS:

NO.	ITEM	SPECIFICATION	
		Min	Max
1	CENTER FREQUENCY	813MHz	
2	PASS BAND WIDTH	798 ~ 828MHz	
3	PASS BAND INSERTION LOSS		1.5 dB
4	PASS BAND RIPPLE		0.6 dB
5	PASS BAND RETURN LOSS	10 dB	
6	STOP-BAND ATTENUATION	743MHz	30 dB
		883MHz	10 dB

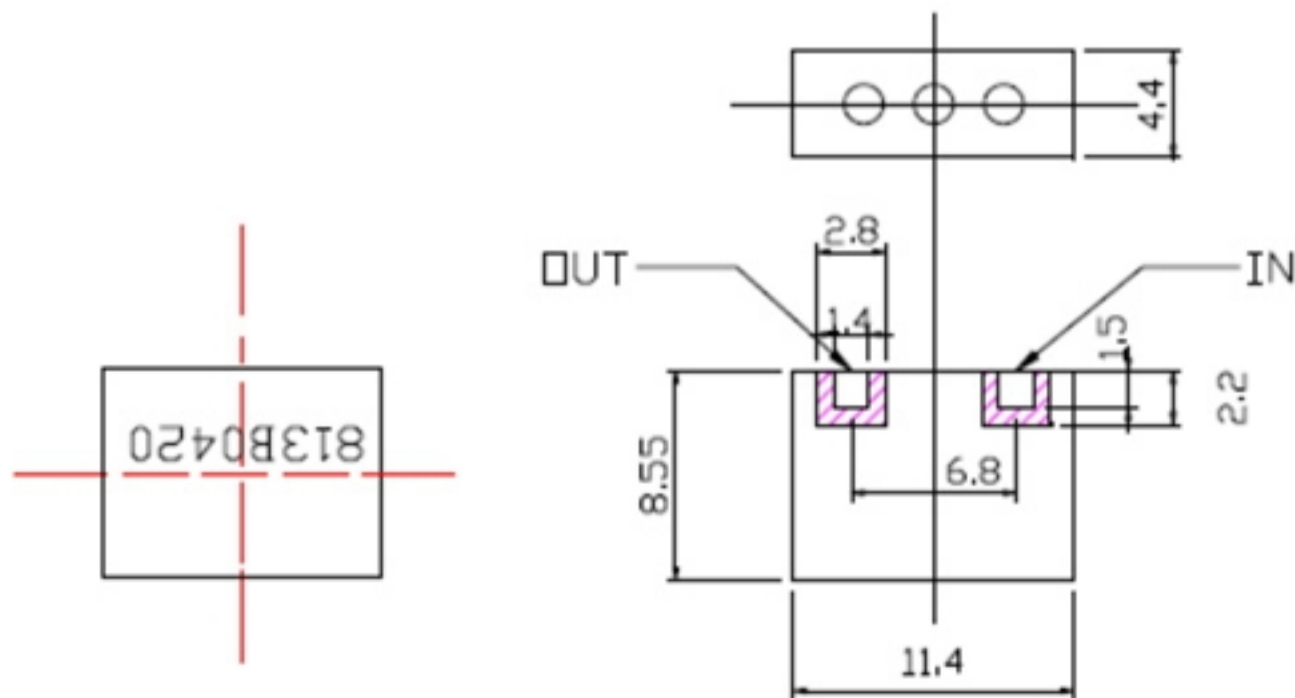
Item NO.6 specifies the absolute value of attenuation.

※Data is measured on Ciocomm EVB board

### C. FREQUENCY CHARACTERISTICS:



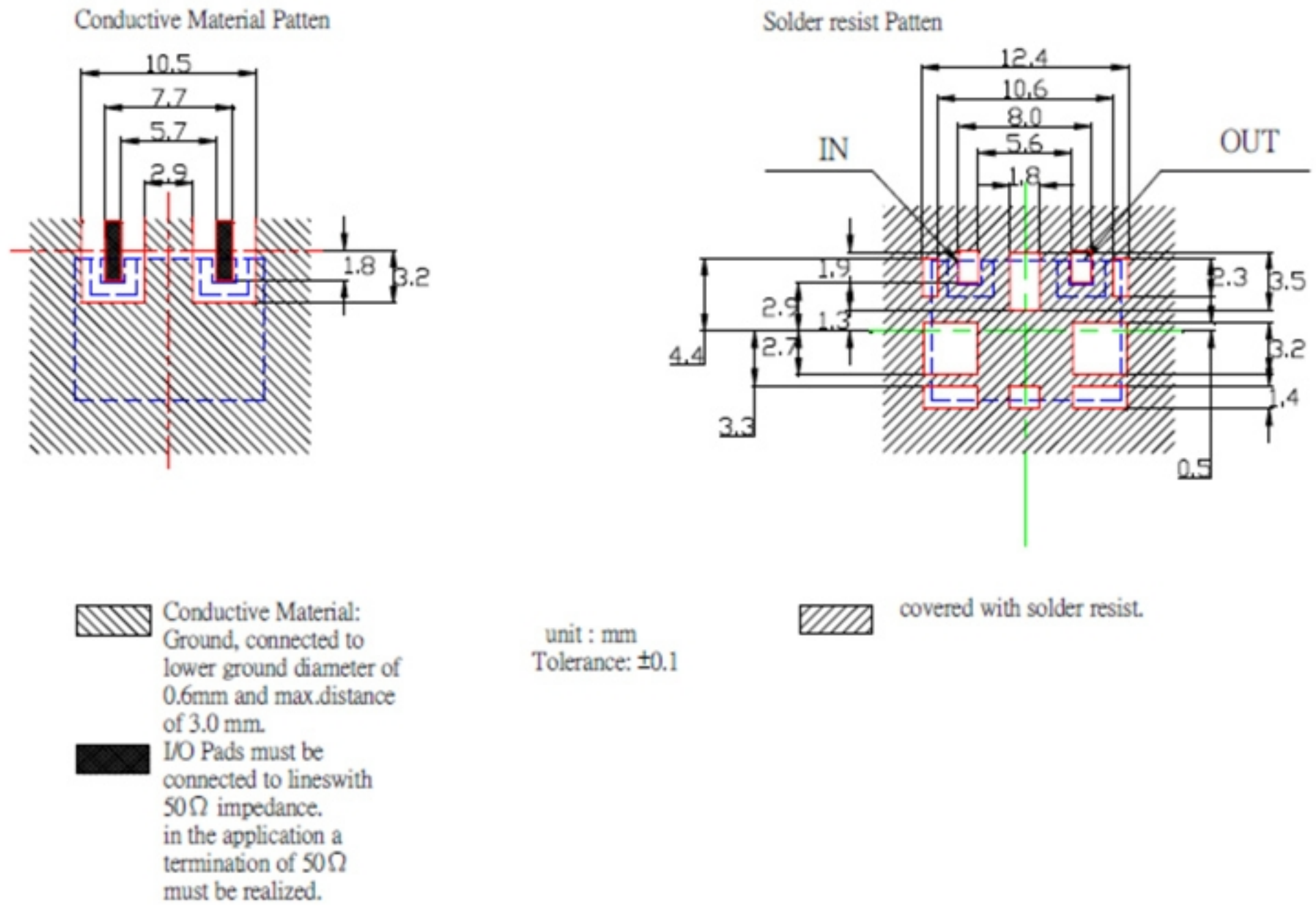
### D. DIMENSION:



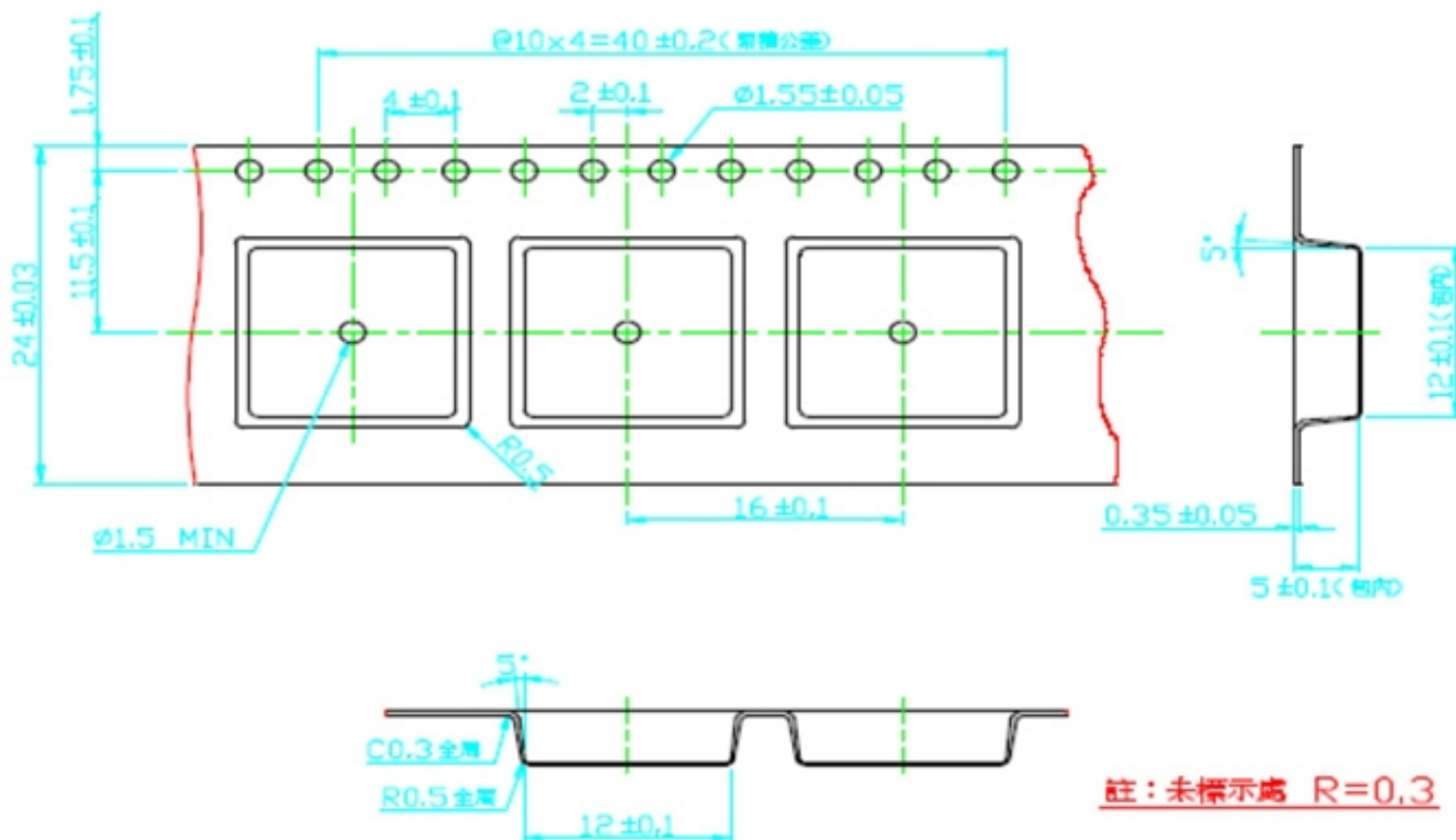
unit: mm  
Tolerance: ±0.3

813B : product name(J813B)  
04 : month  
20 : year (2020)

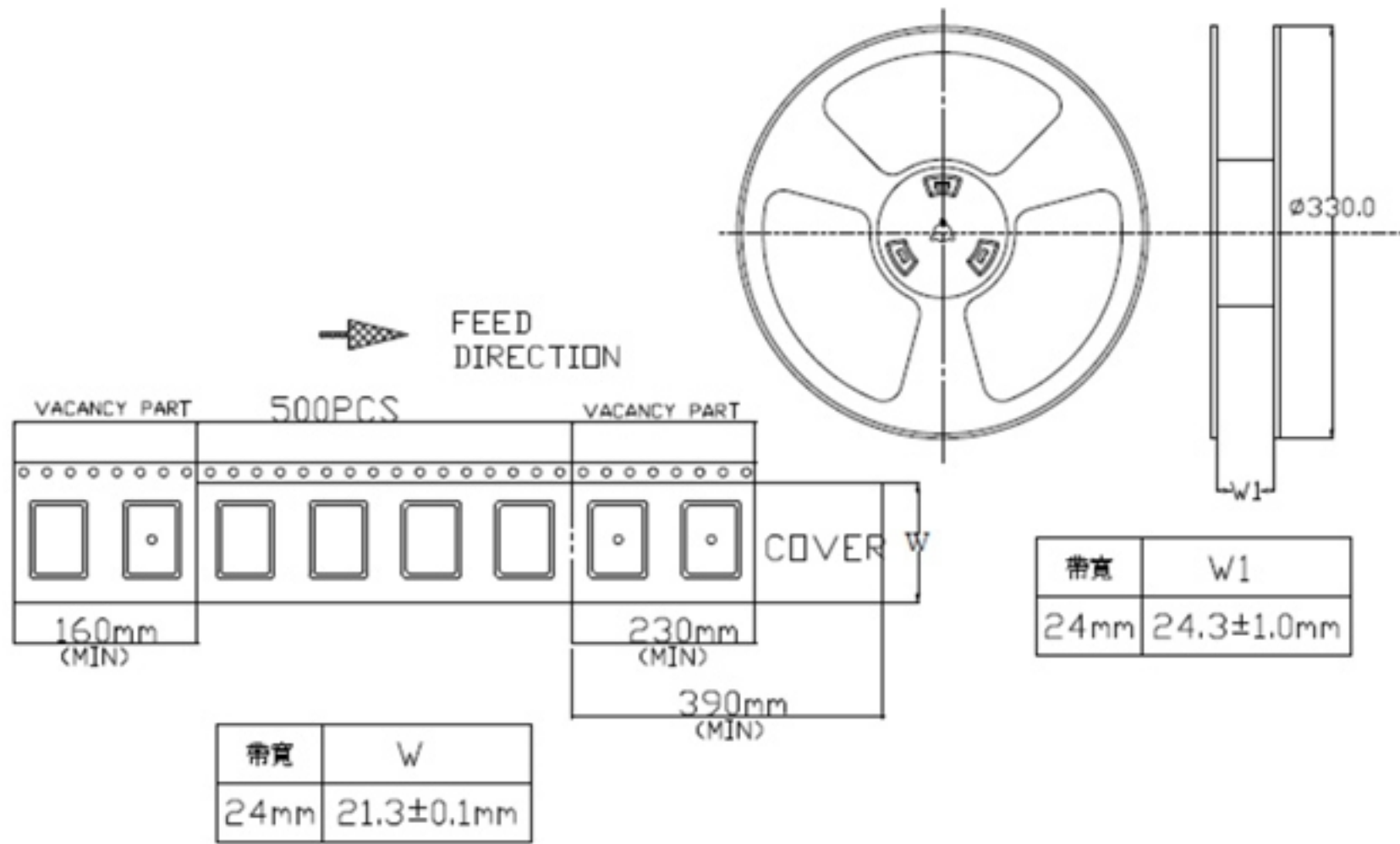
### E. PCB FOOTPRINT:



### F. PACKING:



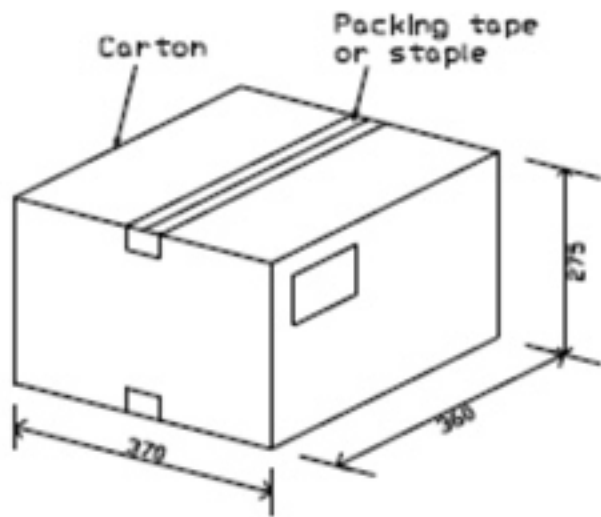
# Reel



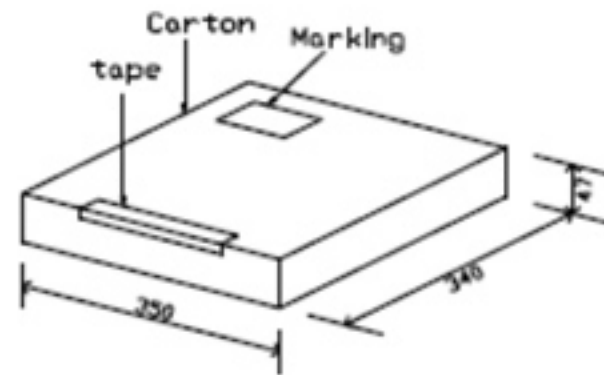
## Package style

Moisture Sensitivity Level: Level 2a (MSL2a)

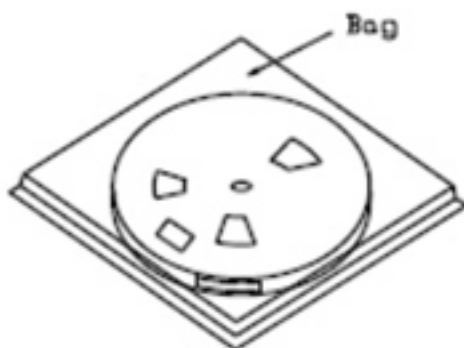
1. Outer Carton  
Quantity: 2500PCS



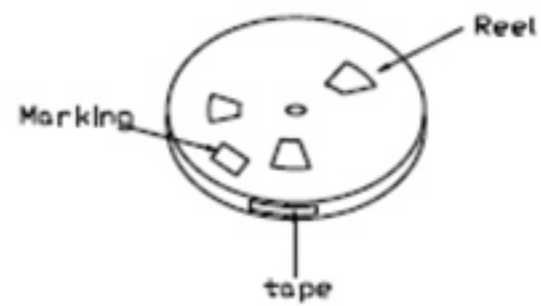
2. Inner Carton  
Quantity: 500PCS



3. Bag  
Quantity: 500PCS



4. Taping  
Quantity: 500PCS



Unit:mm

## G. RECOMMENDED REFLOW PROFILE:

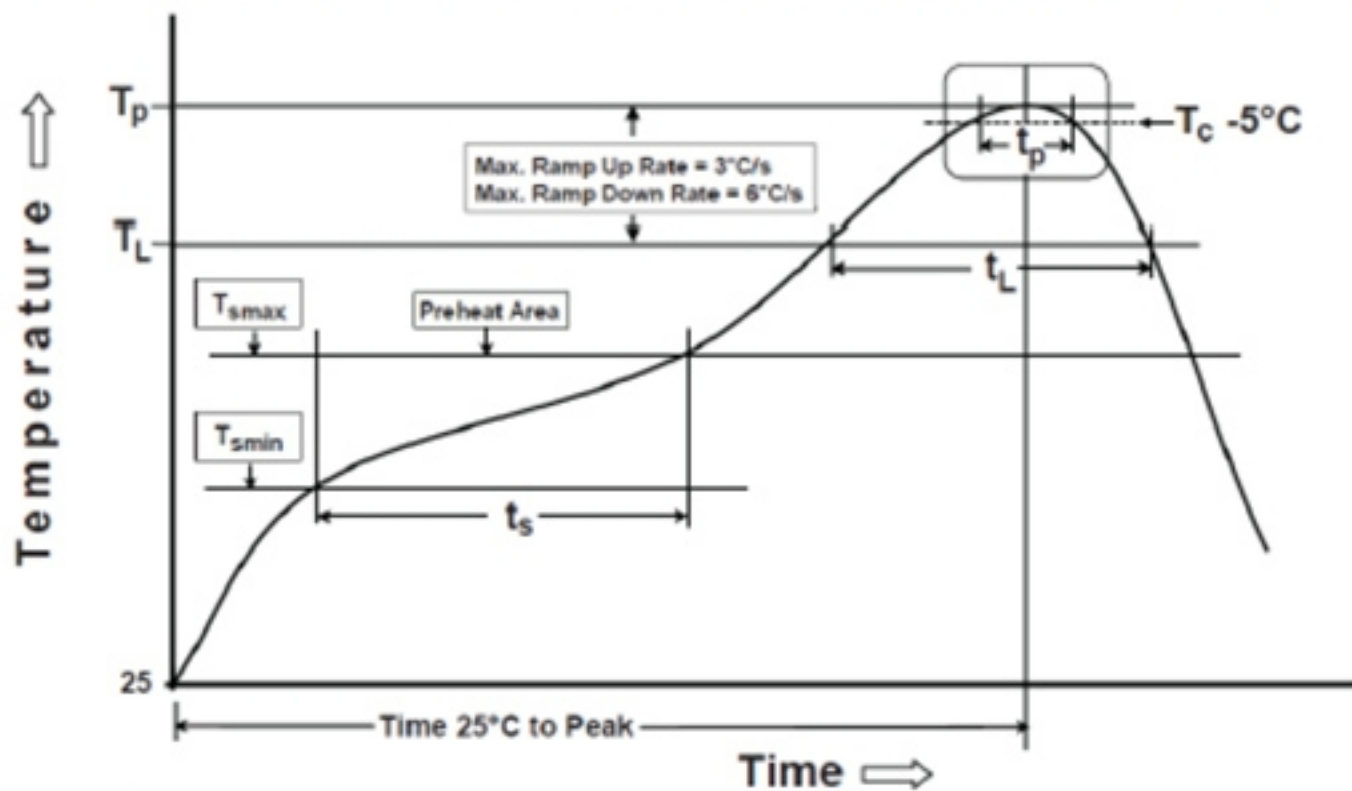
### Recommended Reflow Soldering Profile

Cirocomm products can be assembled following Pb-free assembly. According to the Standard IPC/JEDEC J-STD-020C, the temperature profile suggested is as follow:

Phase	Profile features	Pb-Free Assembly (SnAgCu)
PREHEAT	-Temperature Min( $T_{smin}$ ) -Temperature Max( $T_{smax}$ ) -Time( $t_s$ ) form ( $T_{smin}$ to $T_{smax}$ )	150°C 200°C 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate ( $T_{smax}$ to TP)	3°C/second(max)
REFLOW	-Temperature( $T_L$ ) -Total Time above $T_L$ ( $t_L$ )	217°C 30-100 seconds
PEAK	-Temperature( $T_P$ ) -Time( $t_p$ )	260°C 3 second
RAMP-DOWN	Rate	6°C / second max.
Time from 25°C to Peak Temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu
Solder Paste Model		SHENMAO PF606-P26

Note : All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens



### Soldering With Iron:

Soldering condition : Soldering iron temperature  $270 \pm 10$  °C.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature  $270 \pm 10$  °C or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.