

# SAW Resonator 868.35 MHz

MODEL NO.: TC0163A

REV. NO.:3.0

## A. FEATURES:

1. 1-Port Resonator.

RoHS Compliant  
Lead free  
Lead-free soldering

## B. MAXIMUM RATING:

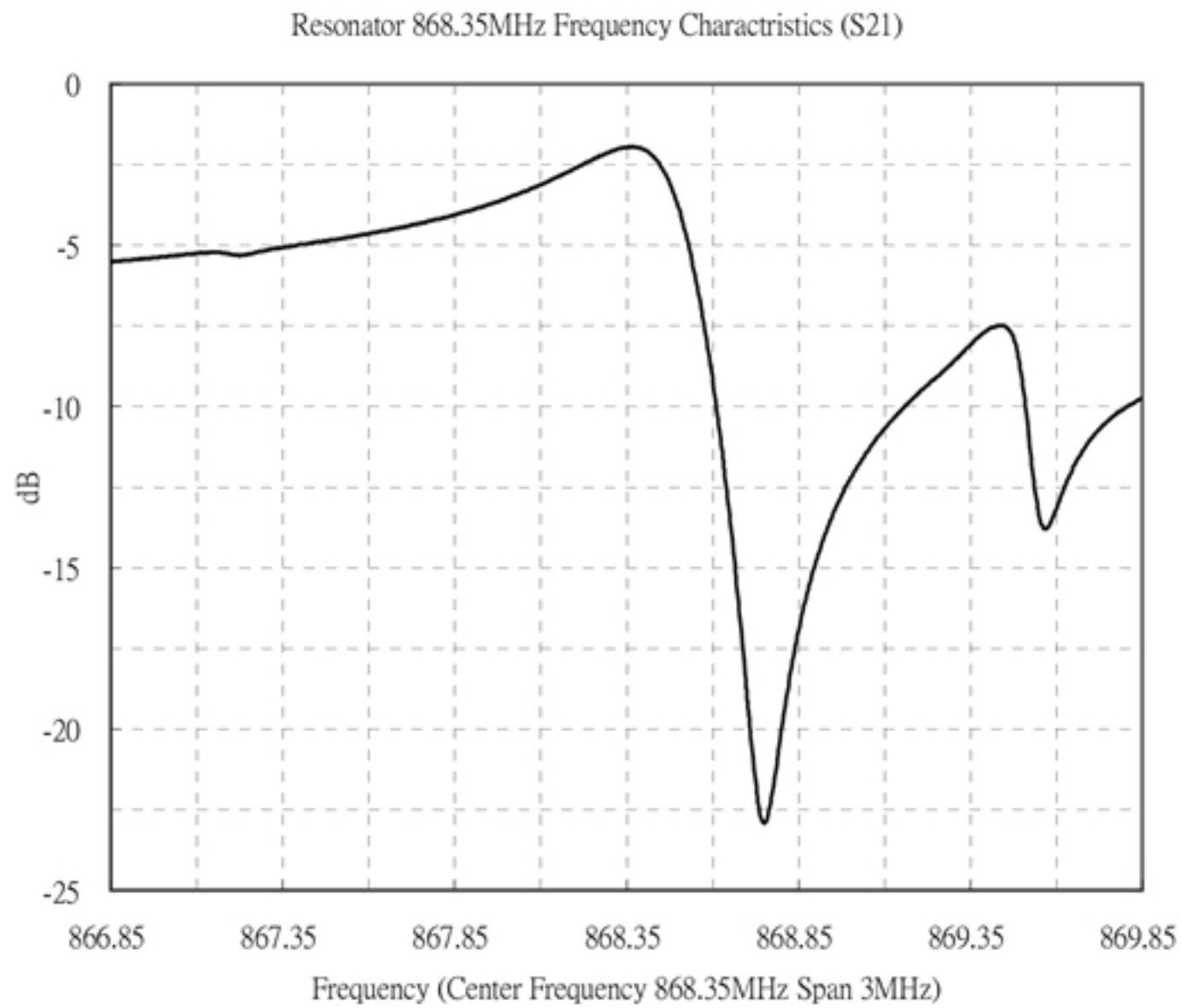
1. Input Power Level: 0 dBm
2. DC voltage: 12 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1 (MSL1)

**Electrostatic Sensitive Device**

## C. ELECTRICAL CHARACTERISTICS:

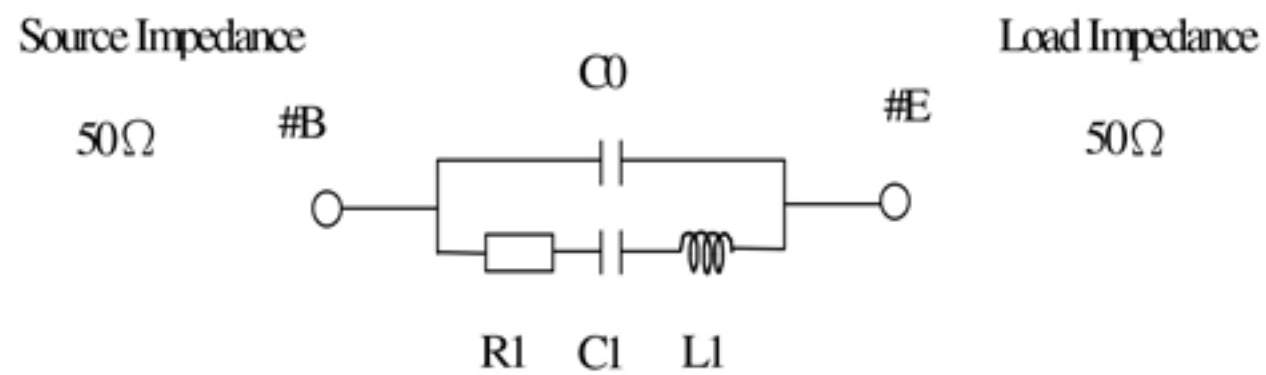
Characteristic	Units	Minimum	Typical	Maximum
Center frequency <b>Fr</b>	<b>MHz</b>	868.275	868.350	868.425
Insertion Loss <b>IL</b>	<b>dB</b>	-	1.3	2.5
Equivalent Elements				
Motional capacitance <b>C1</b>	<b>fF</b>	-	1.21	-
Motional inductance <b>L1</b>	<b>μH</b>	-	27.66	-
Motional resistance <b>R1</b>	<b>Ohm</b>	-	17.92	-
Parallel capacitance <b>Co</b>	<b>pF</b>	-	2.51	-
Temp.coeff.	<b>ppm/c*2</b>	-	0.032	-
Turnover To	<b>deg.C</b>	10	25	40
Package size		SMD 3.8X3.8X1.2mm		

## D. FREQUENCY CHARACTERISTICS:



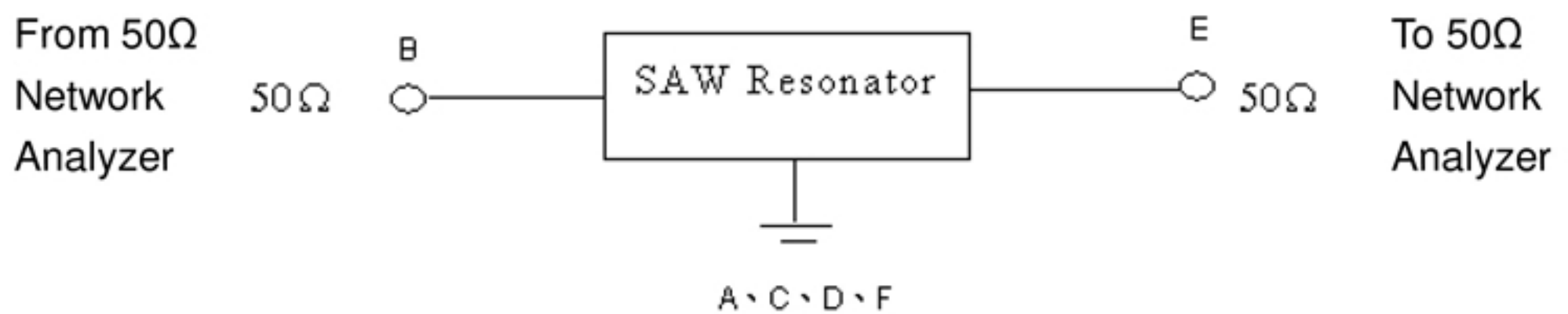
## E. EQUIVALENT CIRCUIT:

One-Port Resonator:

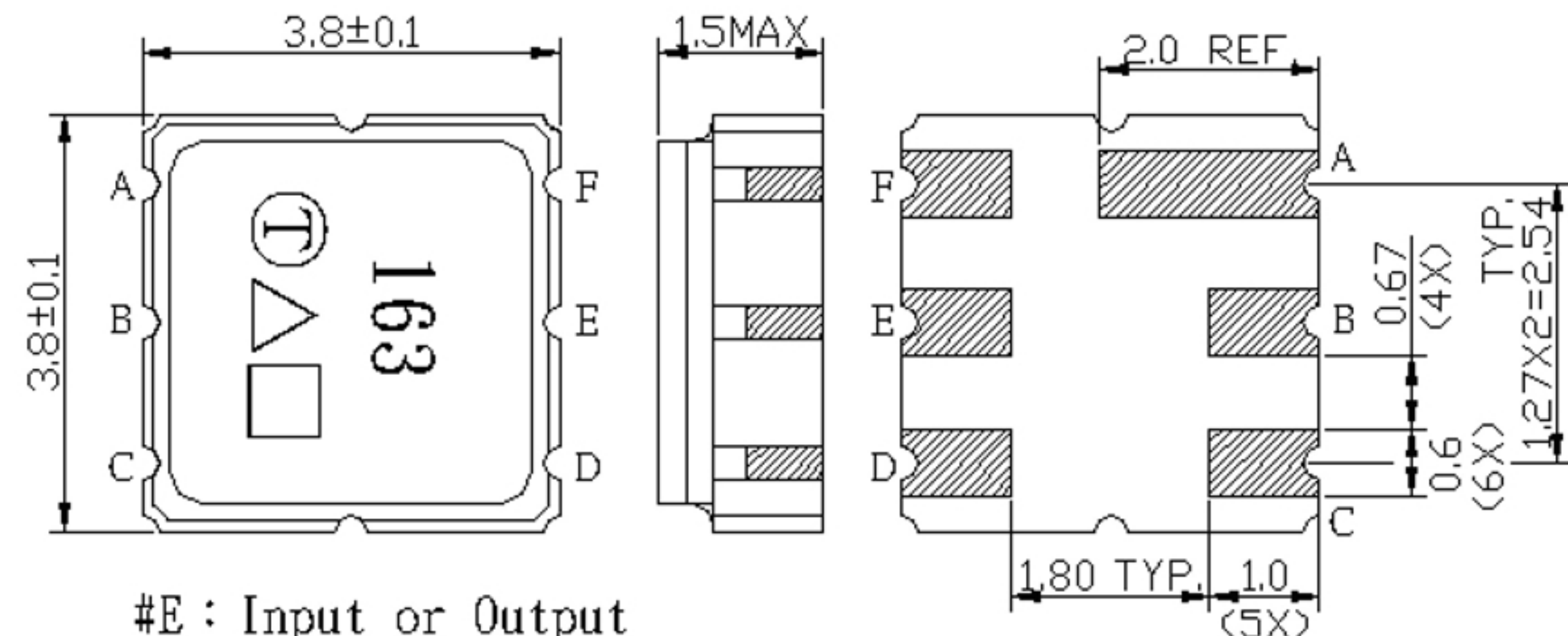


## F. TEST CIRCUIT:

Network analyzer



## G. OUTLINE DRAWING:



#E : Input or Output

#B : Output or Input

#A、C、D、F : Ground

△ : Year code

□ : Date code

Unit : mm

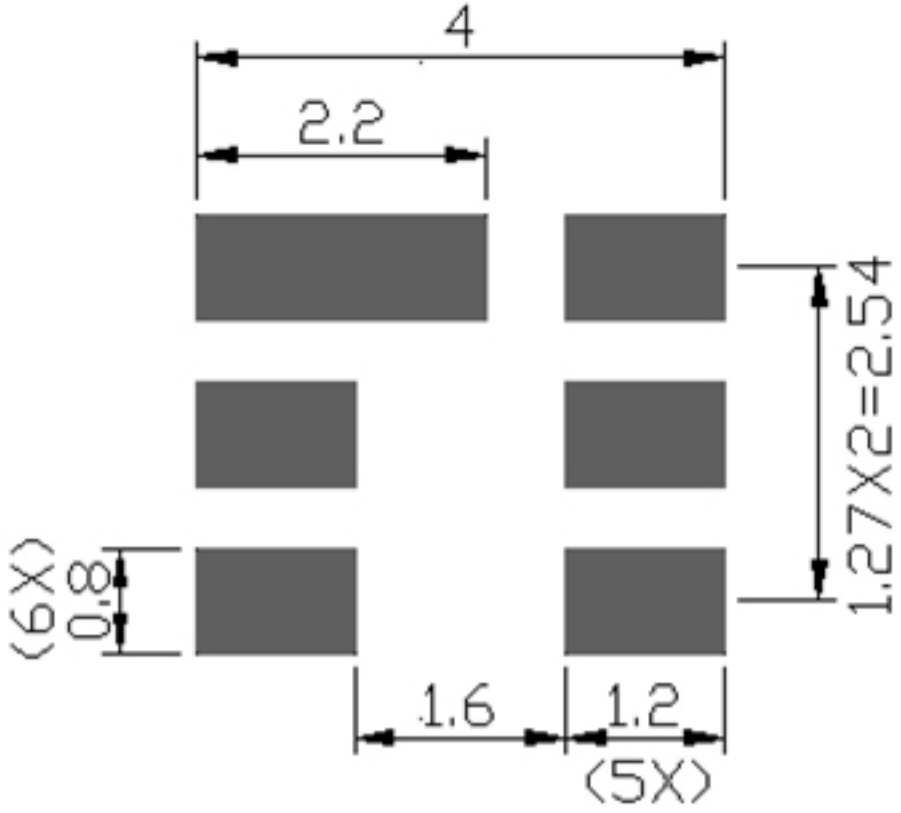
### Product / Year Code- 2year cycle

Year	2019 2021	2020 2022
Product Code	C	c

### Week Code Table

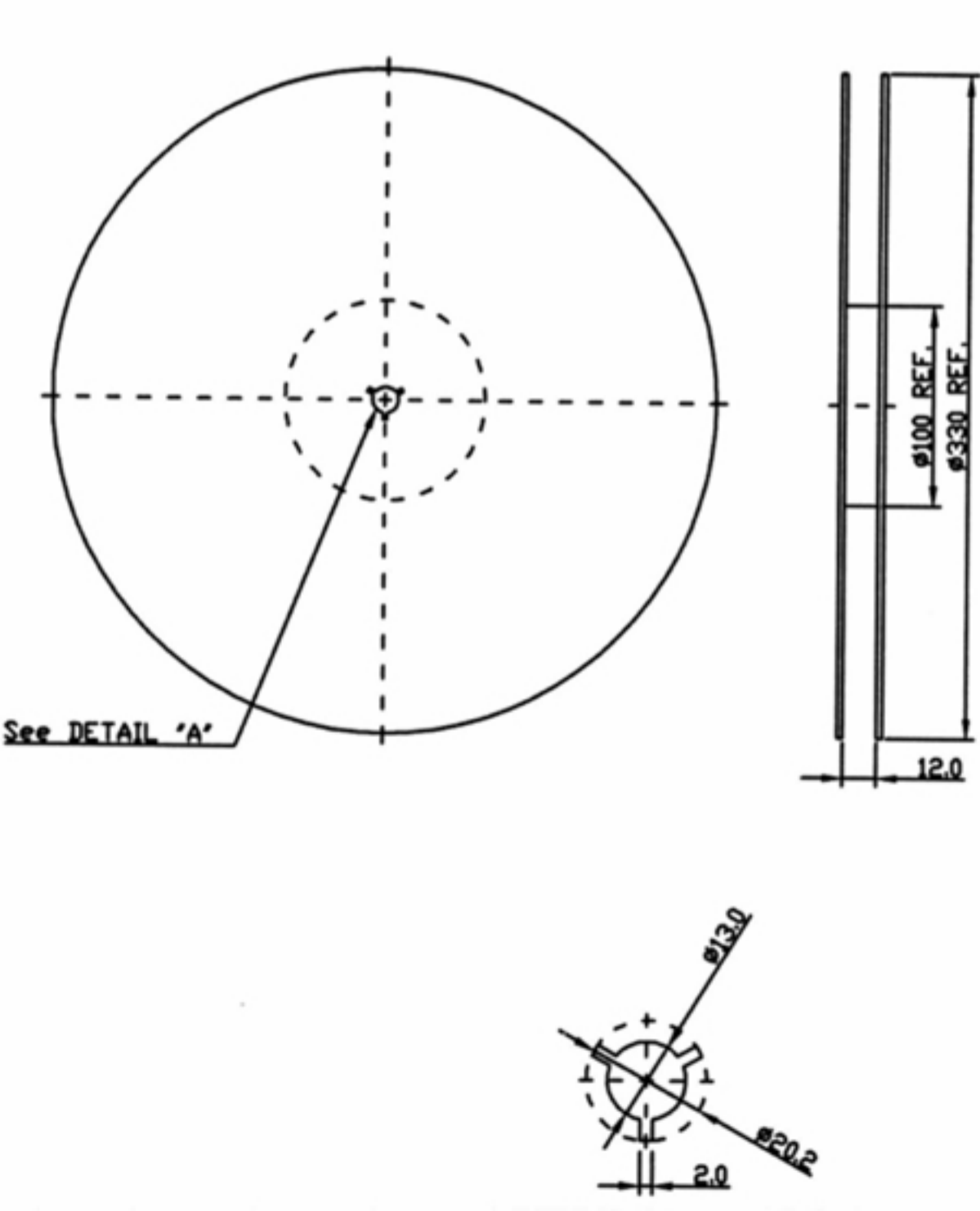
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

H. PCB FOOTPRINT:

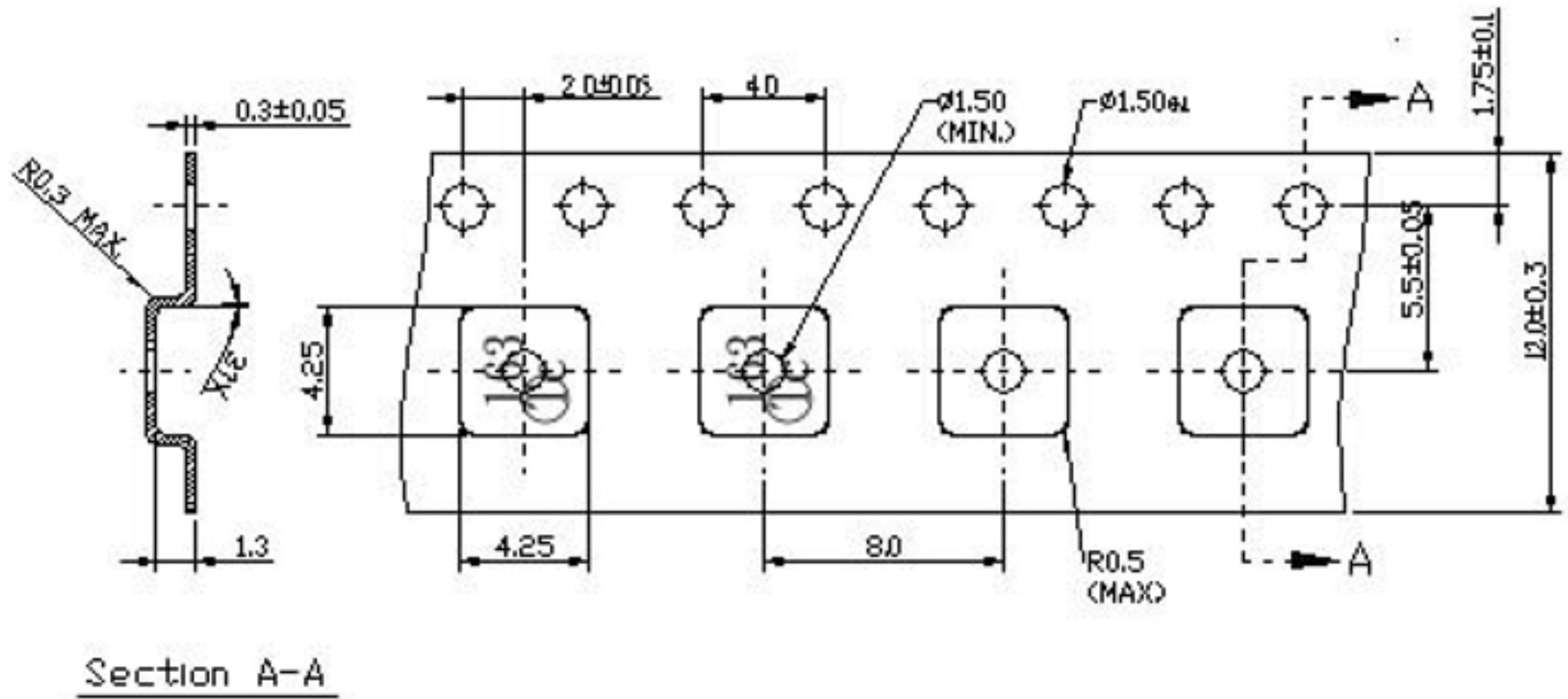


I. PACKING:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



## 2.TAPE DIMENSION



### J. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.

