

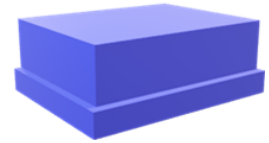
- Complies with Directive 2002/95/EC (RoHS)
- Use for LTE Band 5
- Moisture Sensitivity Level: 1

**Absolute Maximum Ratings**

Rating	Value	Units
Maximum Input Power	10	dBm
DC Voltage	0	V
Operating Temperature Range	-30 to + 85	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
ESD: 100 V(MM), 200 V(HBM)		

**SF2531LM**

**881.5 MHz  
SAW Filter**



**SM1109-5H**

**Electrical Characteristics**

Source Impedance (single ended): 50Ω Load  
Impedance (single ended): 50Ω

Parameters Description		Unit	Min.	Typ.	Max.	Remark
Center Frequency (Fo)		MHz	-	881.5	-	
Insertion Loss	869.0 ~ 894.0 MHz	dB	-	1.6	2.3	
Amplitude Ripple	869.0 ~ 894.0 MHz	dB <sub>p-p</sub>	-	0.4	1.3	
VSWR	869.0 ~ 894.0 MHz	-	-	1.6	2.0	
Attenuation:						
DC ~ 824.0 MHz		dB	40	51	-	
824.0 ~ 849.0 MHz		dB	40	46	-	
914.0 ~ 970.0 MHz		dB	25	35	-	
970.0 ~ 1049.0 MHz		dB	38	52	-	
1049.0 ~ 2000.0 MHz		dB	33	43	-	
2000.0 ~ 3000.0 MHz		dB	25	39	-	
3000.0 ~ 6000.0 MHz		dB	20	36	-	

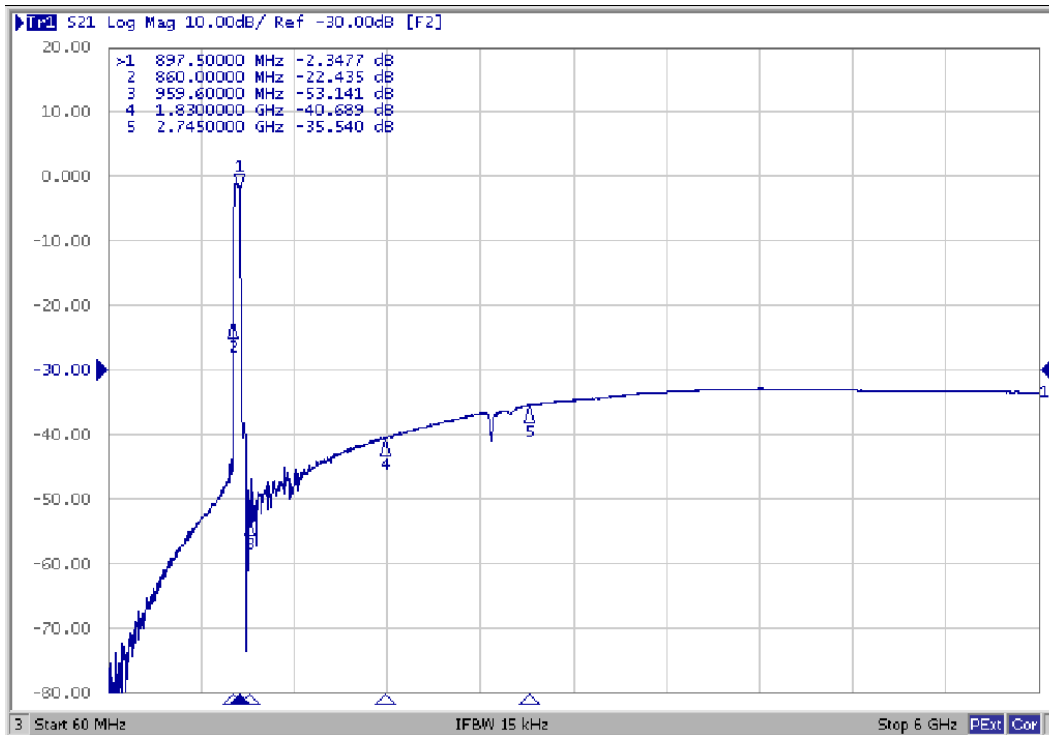
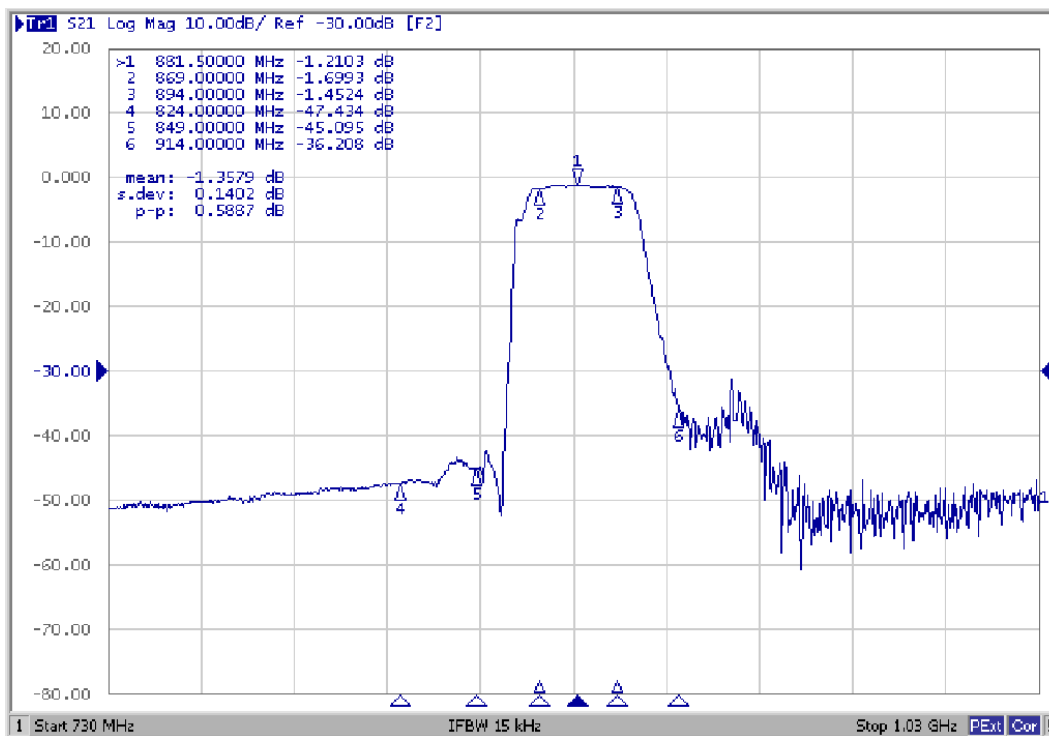


**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

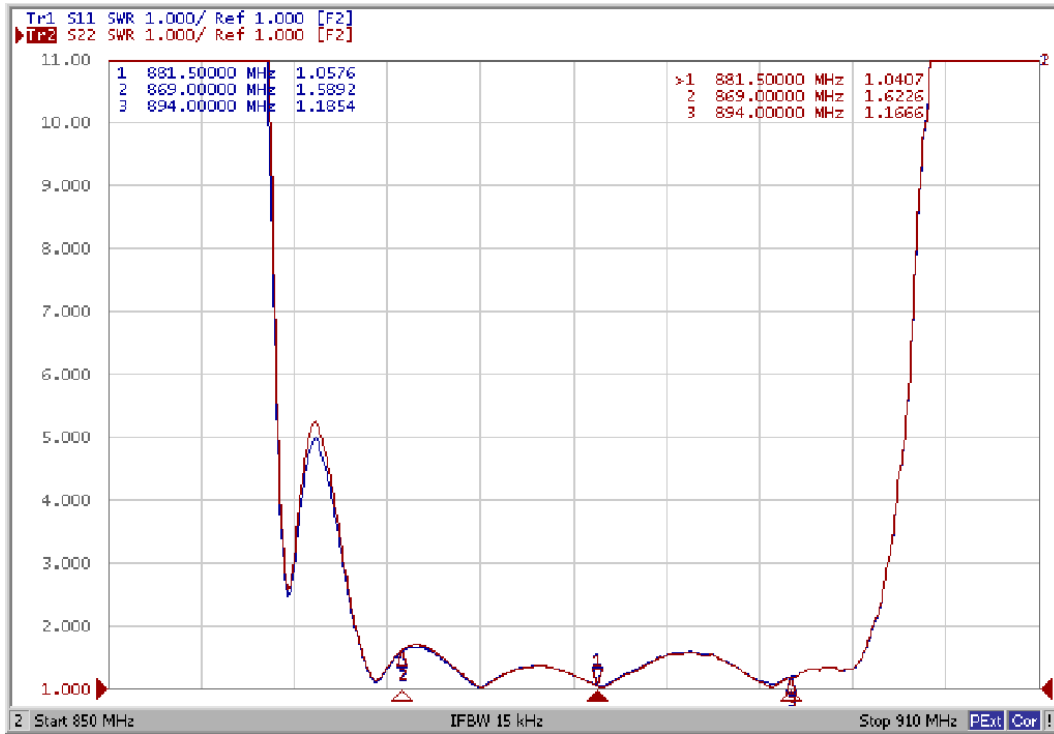
**NOTES:**

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

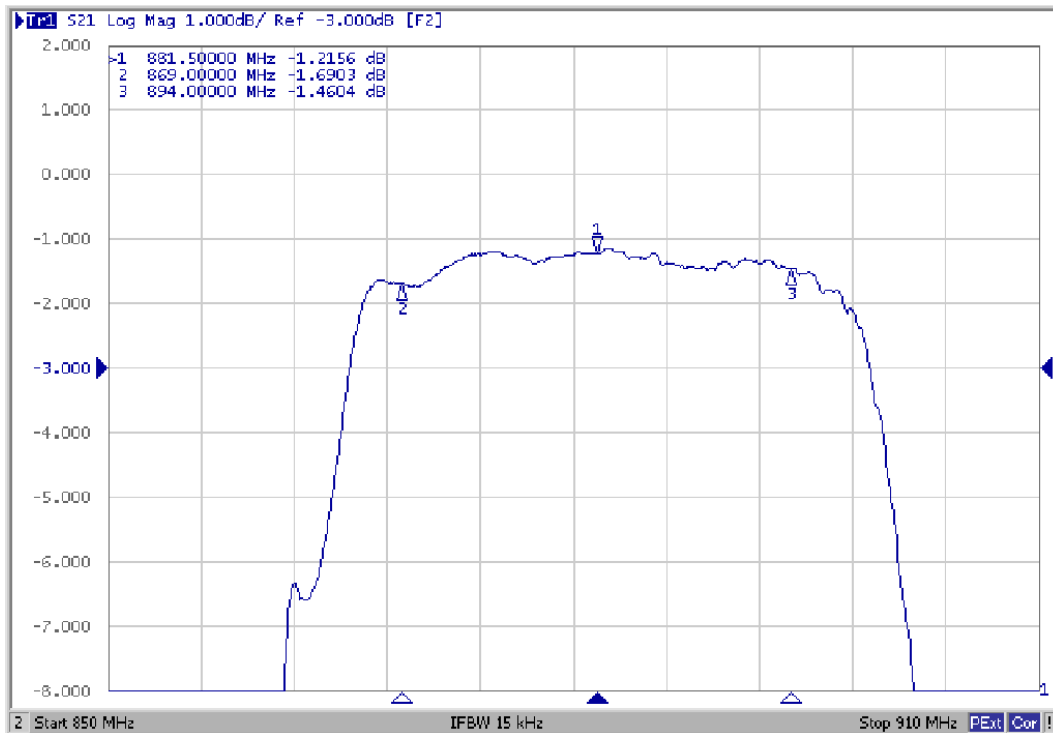
# Frequency Characteristics



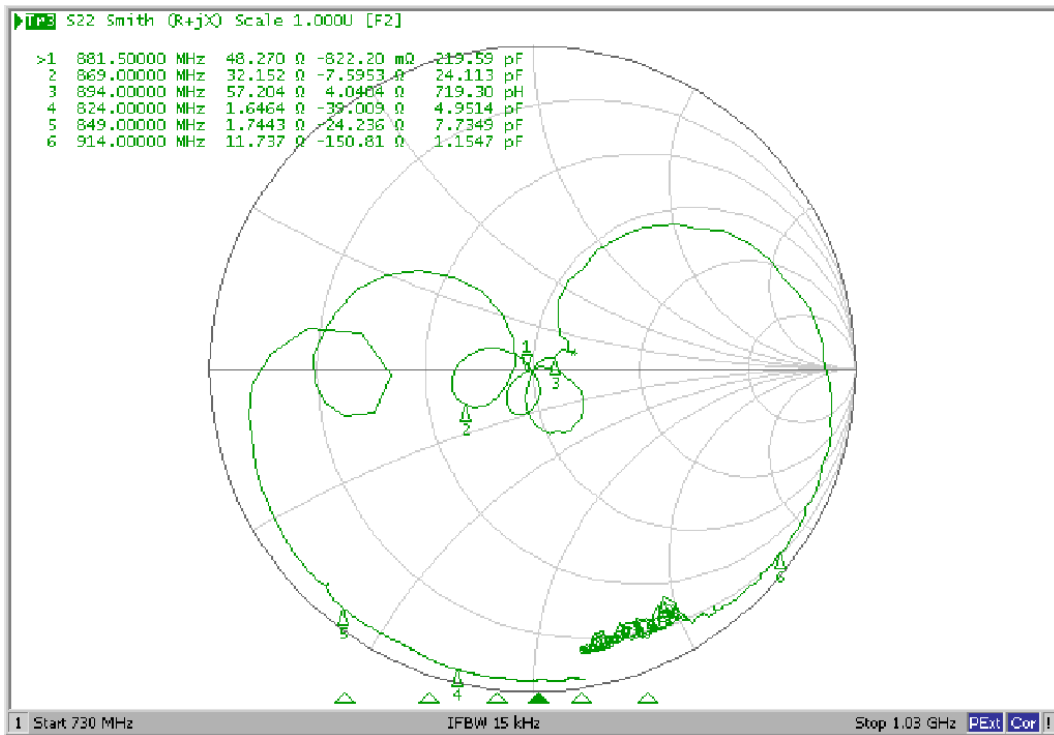
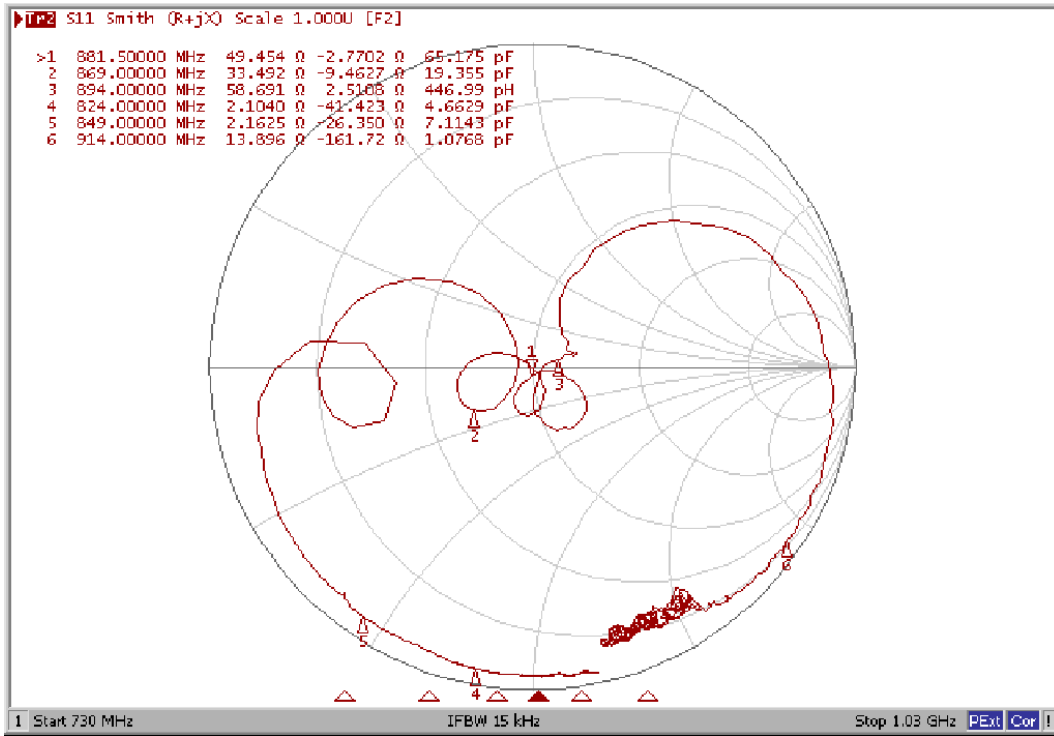
## VSWR



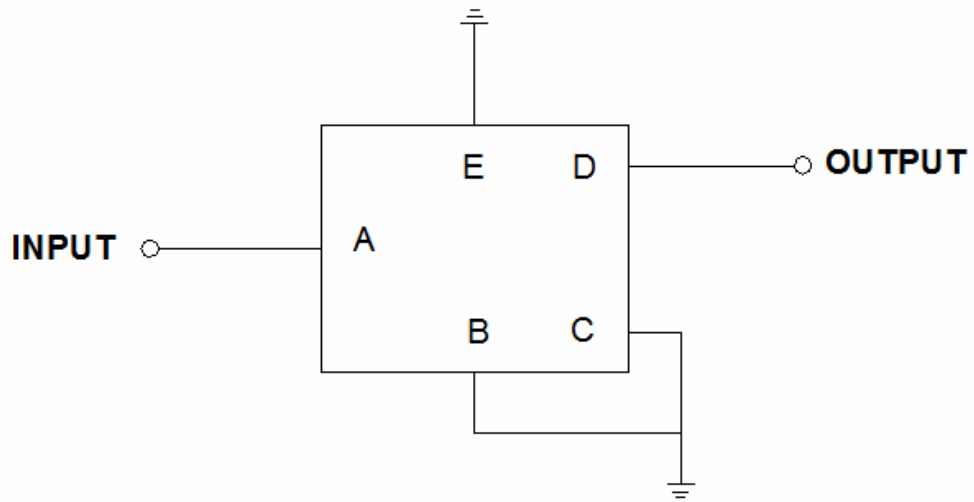
## Ripple



## Smith Chart



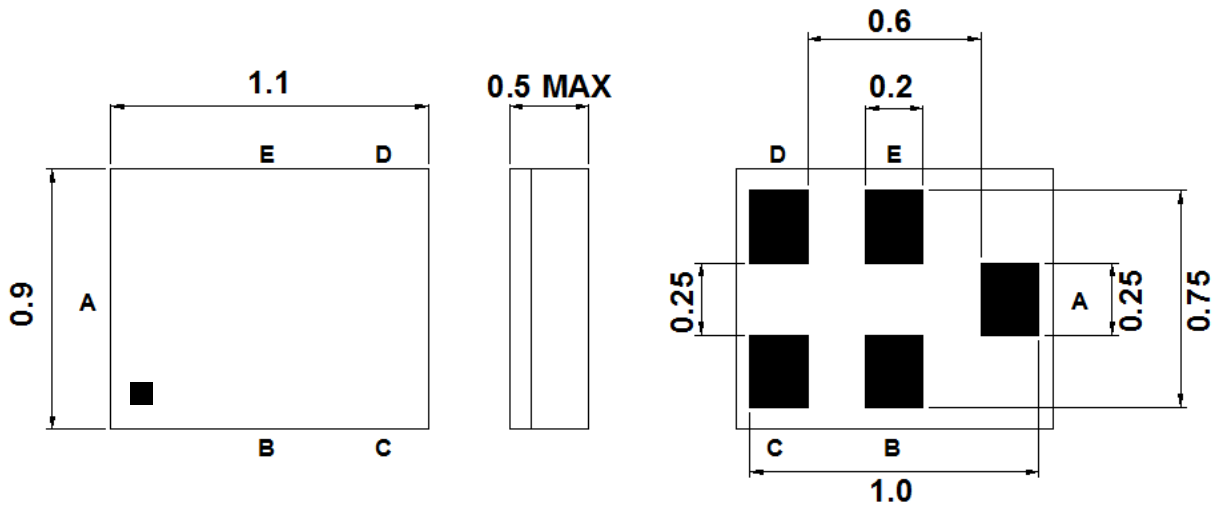
## Measurement Circuit



Source Impedance:  $50 \Omega$

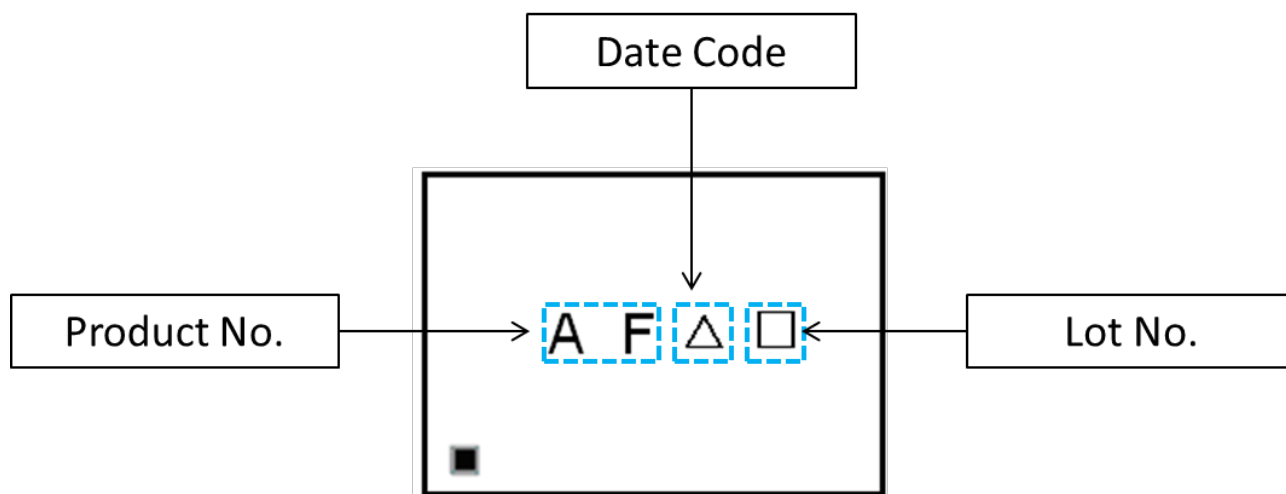
Load Impedance:  $50 \Omega$

## Outline Drawing

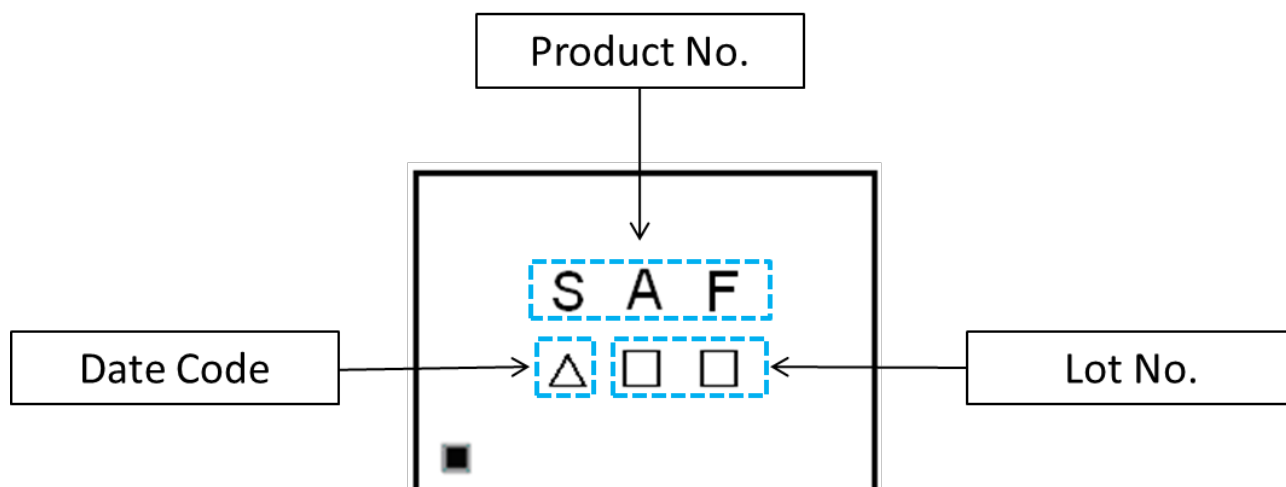


Pin Description	
B, C, E	Ground
A	Input
D	Output

**Top View (Sample Production):**



**Top View (Mass Production):**



△ : Date Code

□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

**Product date Code (EIAJ)**

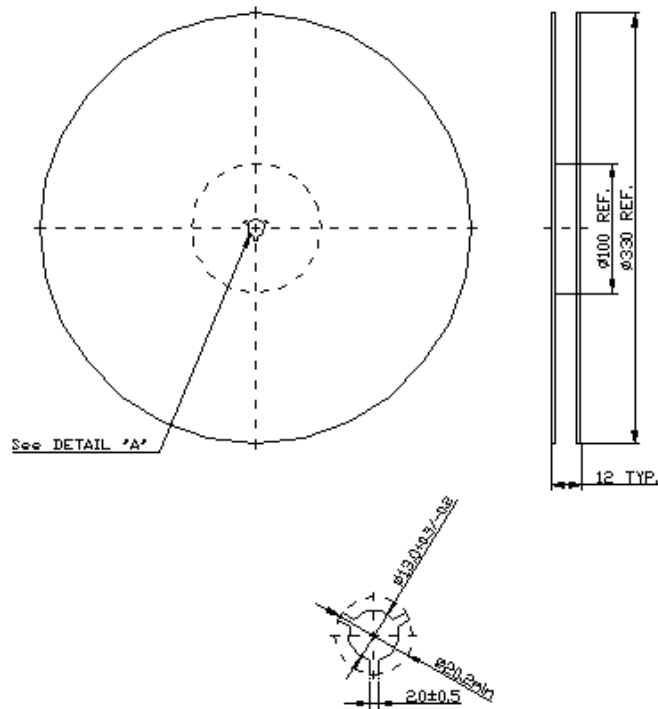
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

# Packing

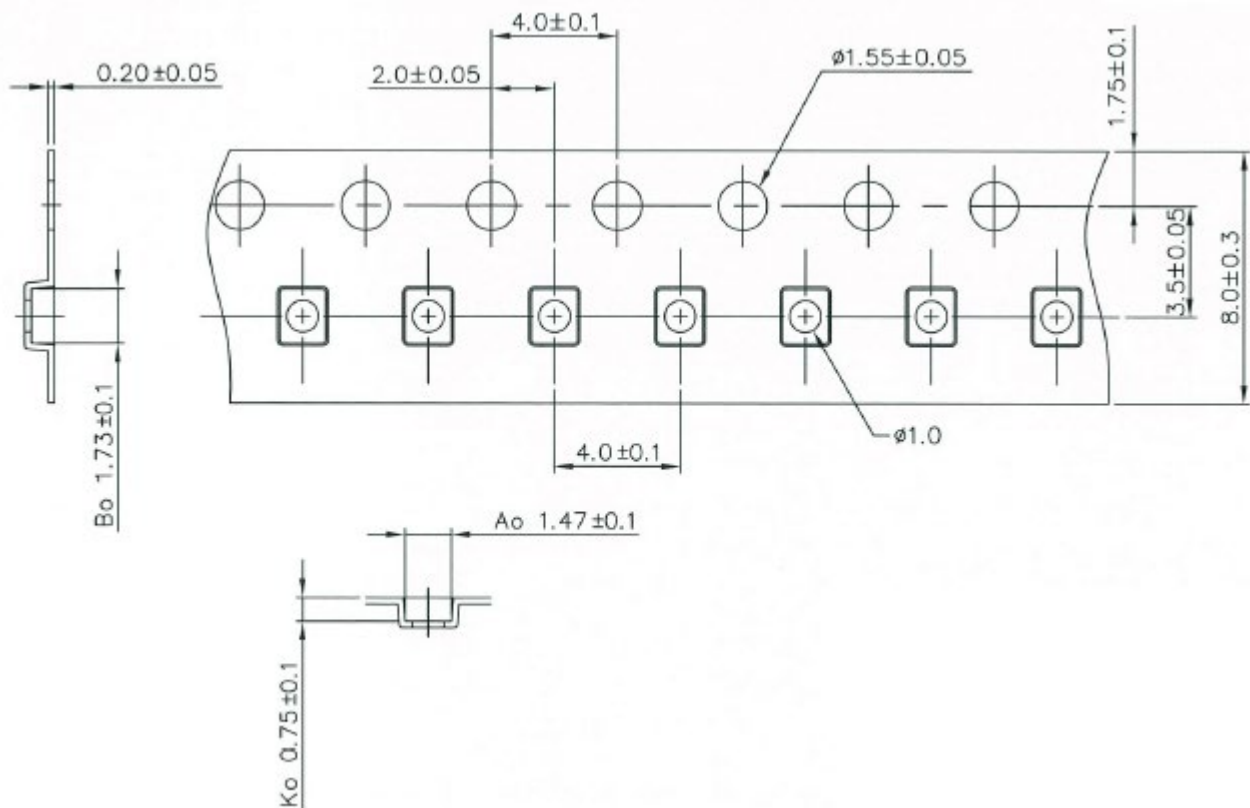
Reel Dimension

Tape and Reel Standard per ANSI/EIA-481

Reel Count:  
7" = 3000  
13" 10,000



# Tape Dimension



## 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 (10 seconds).
4. Time: 5 times maximum.

