

SF2609LM

**1960 MHz
SAW Filter**



SM1109

MAXIMUM RATING:

- Operating temperature range: -30 °C to +90 °C
- Storage temperature range: -40 °C to +100 °C
- Maximum Input Power: +15 dBm
- Maximum DC Voltage: +/-5 V
- Moisture Sensitivity Level: Level 1
- ESD 50V(MM) 100V(HBM)

ELECTRICAL CHARACTERISTICS:

Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 100//27nH \Omega$ (Balanced)

Parameters Description			Unit	Min.	Typ.	Max.	Remarks
Center Frequency			MHz	-	1960	-	-
Insertion Loss		1930~1990 MHz	dB	-	2.8	3.7	at 1930.6~1989.4 MHz
			dB	-	-	4.0	-
Amplitude Ripple		1930~1990 MHz	dB _{p-p}	-	1.3	2.3	at 1930.6~1989.4 MHz
			dB _{p-p}	-	-	2.6	-
VSWR	Input	1930~1990 MHz	-	-	1.8	2.2	-
	Output	1930~1990 MHz	-	-	1.8	2.3	-
Amplitude balance (S21 / S31)		1930~1990 MHz	dB	-1.8	-1.0~+1.3	+1.8	-
Phase balance ((ΦS21-ΦS31)+180)		1930~1990 MHz	deg.	-15	-10~+5	+15	-
Attenuation:							
10~1850 MHz			dB	40	51		-
824~849 MHz			dB	50	62	-	-
1850~1910 MHz			dB	40	44	-	-
2020~2070 MHz			dB	15	20	-	-
2070~6000 MHz			dB	35	42	-	-

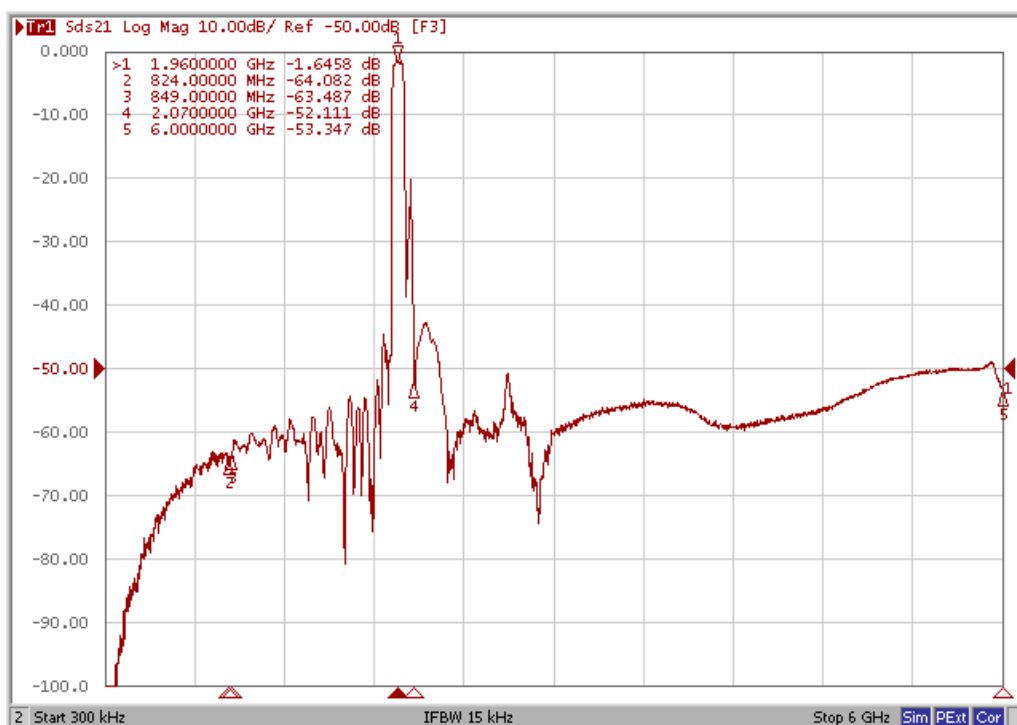
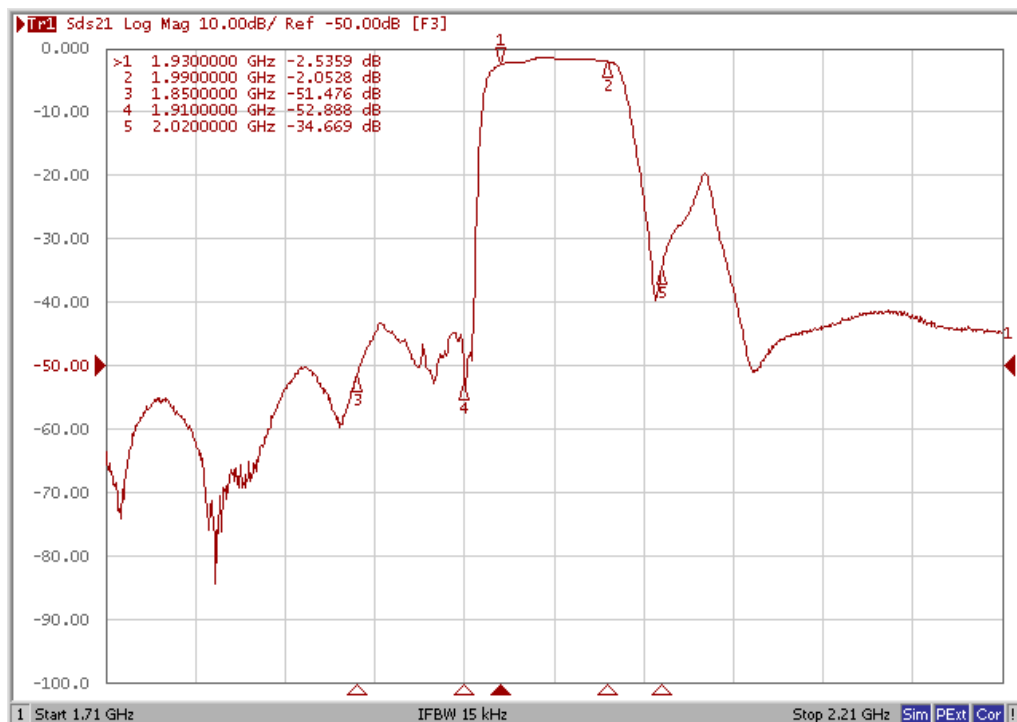
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.



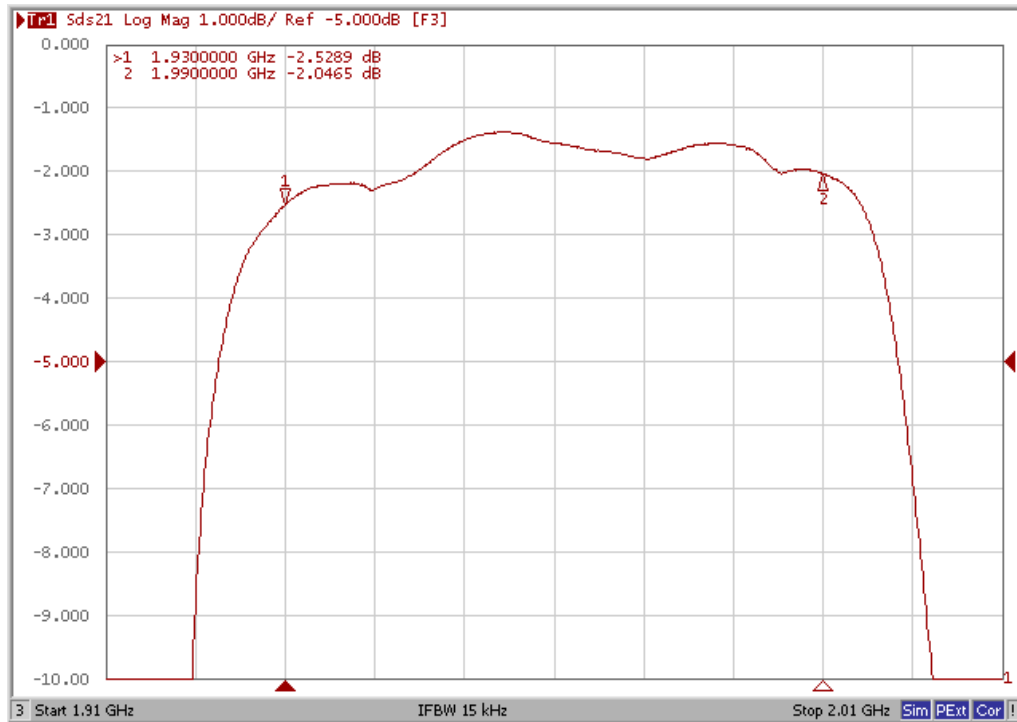
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

FREQUENCY CHARACTERISTICS:

Frequency Response



Ripple



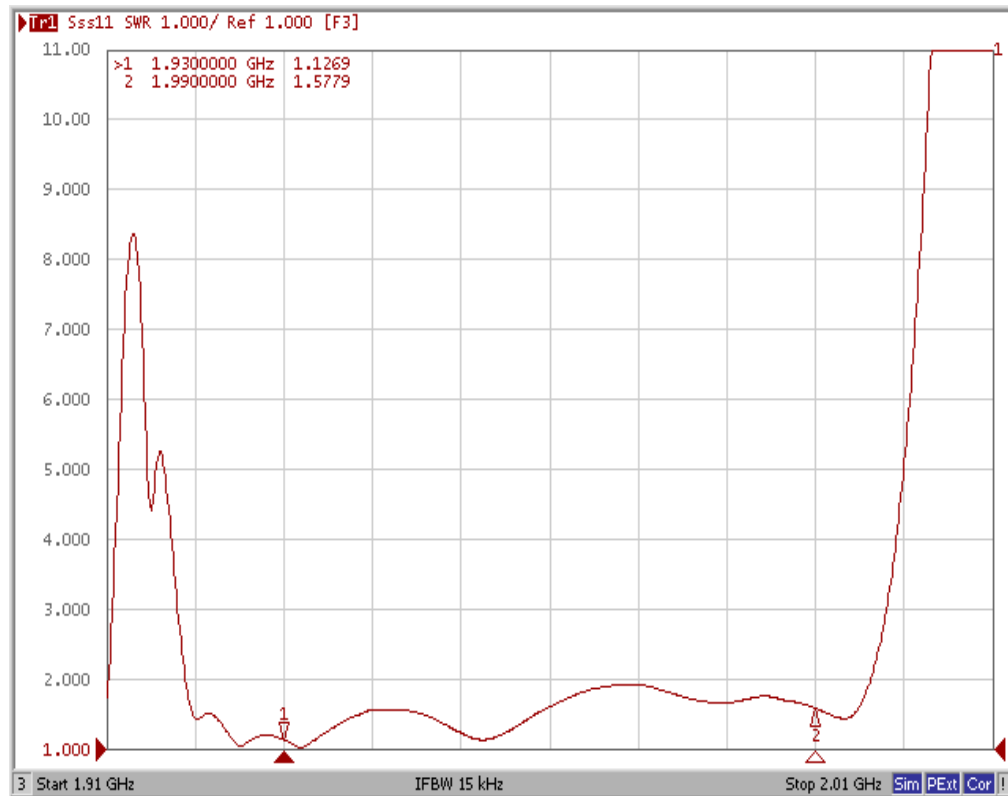
Amplitude balance



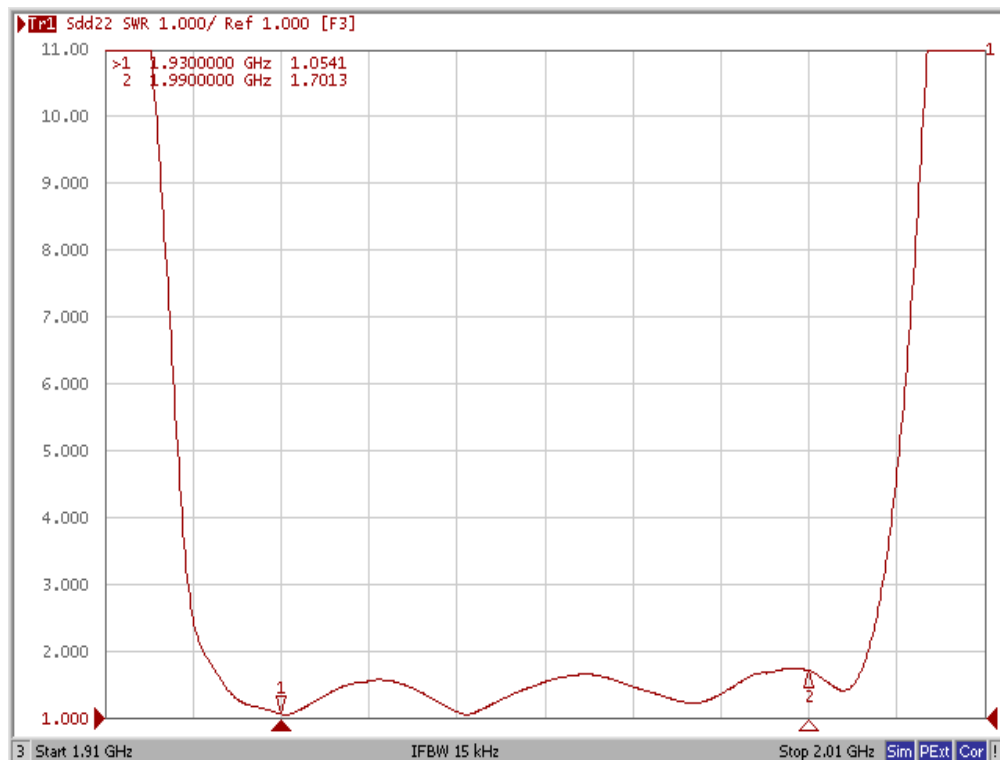
Phase balance



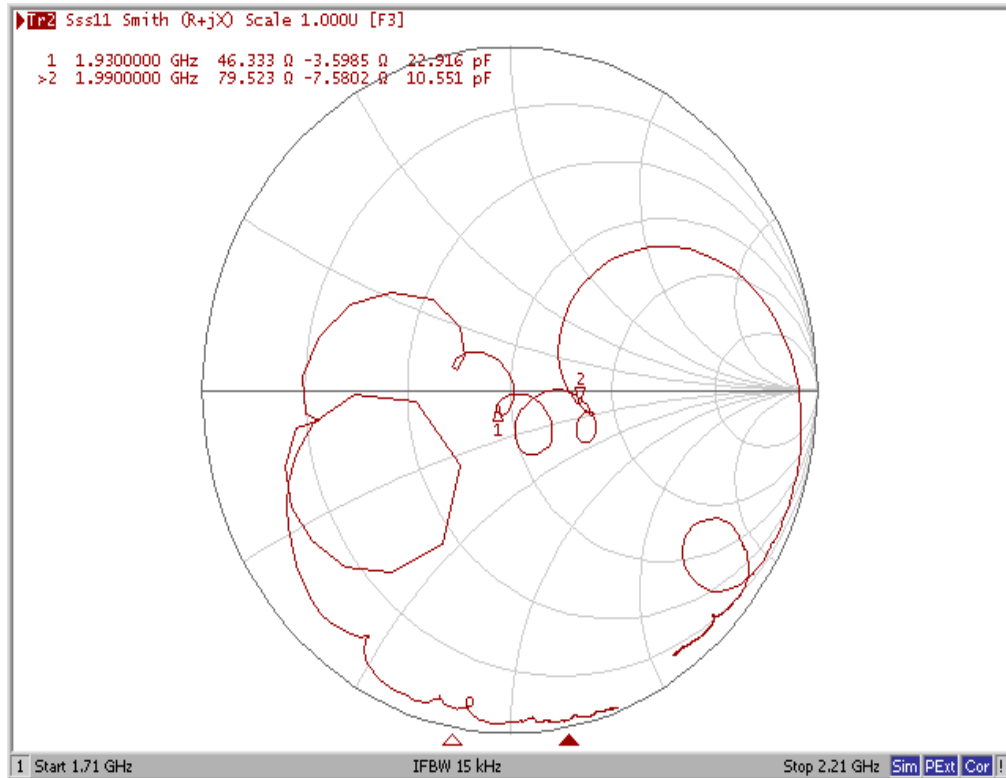
VSWR (S11)



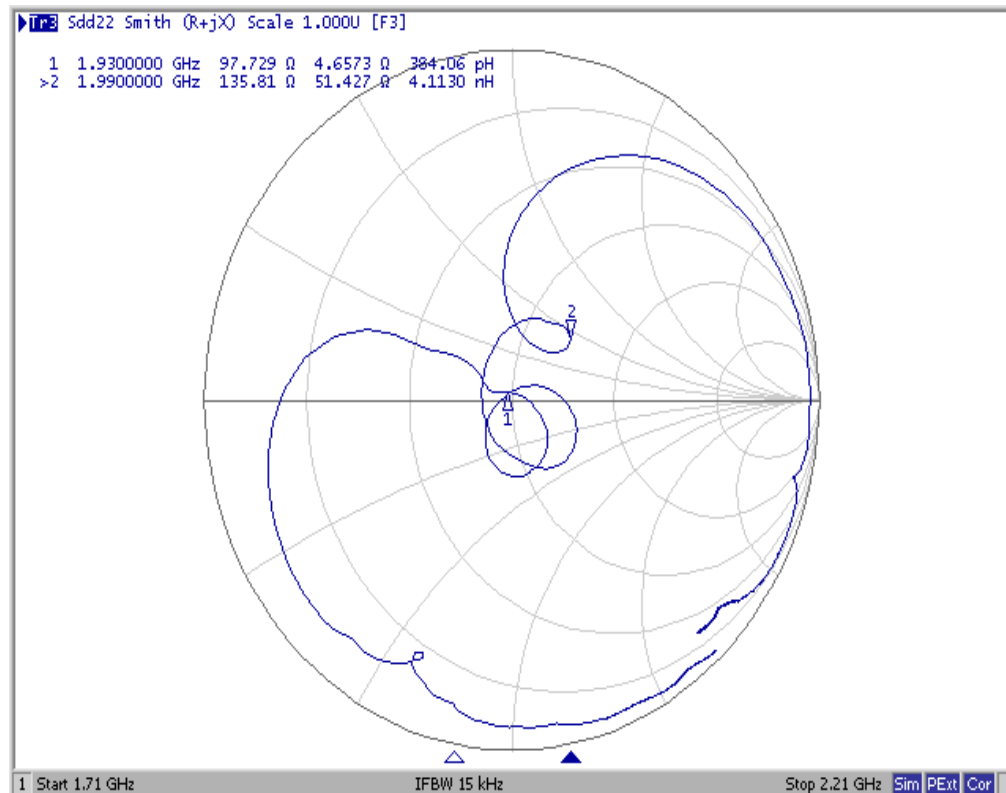
VSWR (S22)



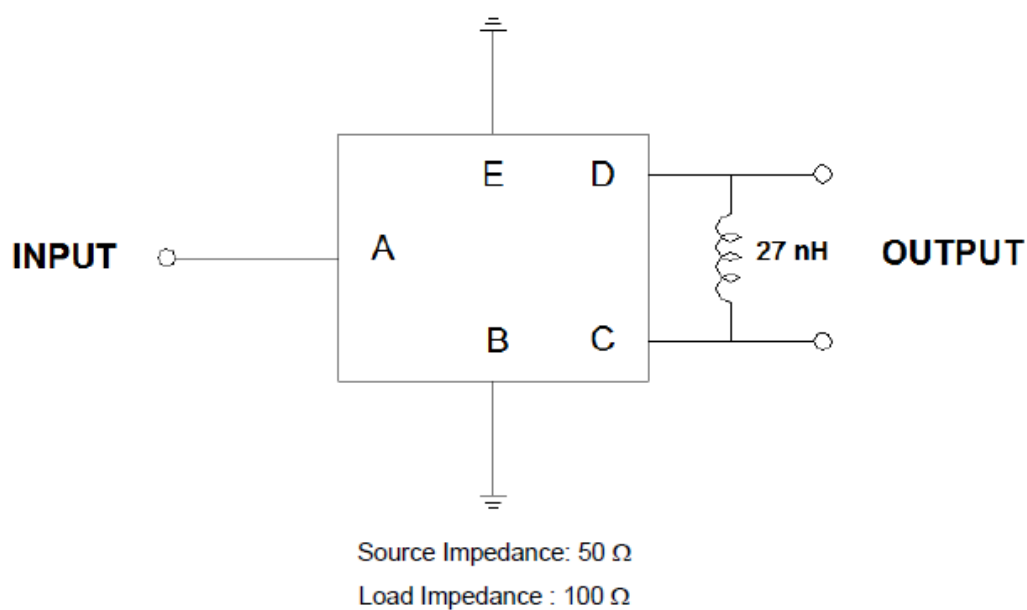
Smith Chart (S11)



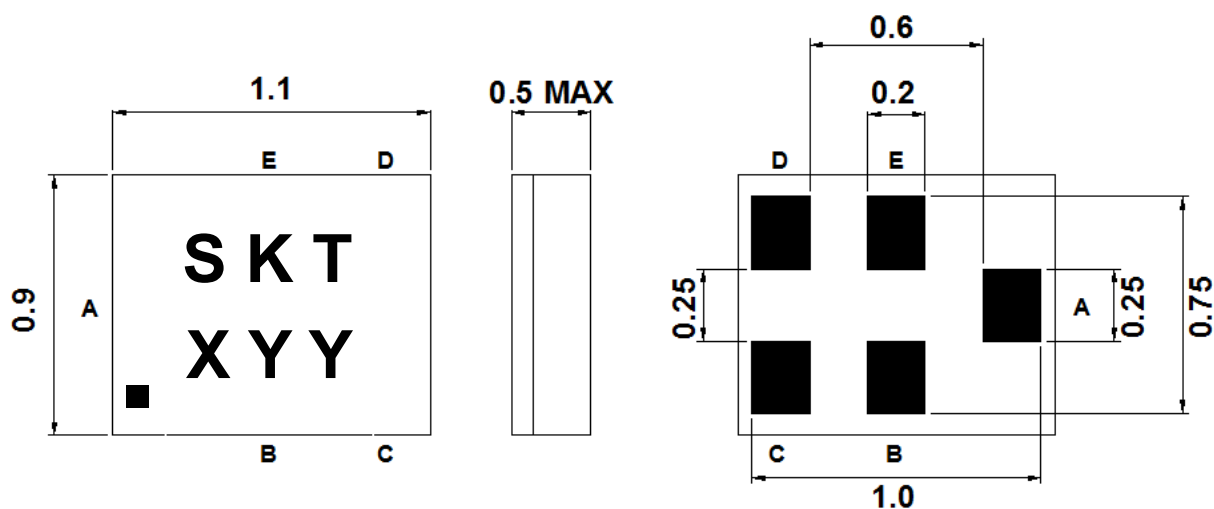
Smith Chart (S22)



MEASUREMENT CIRCUIT:



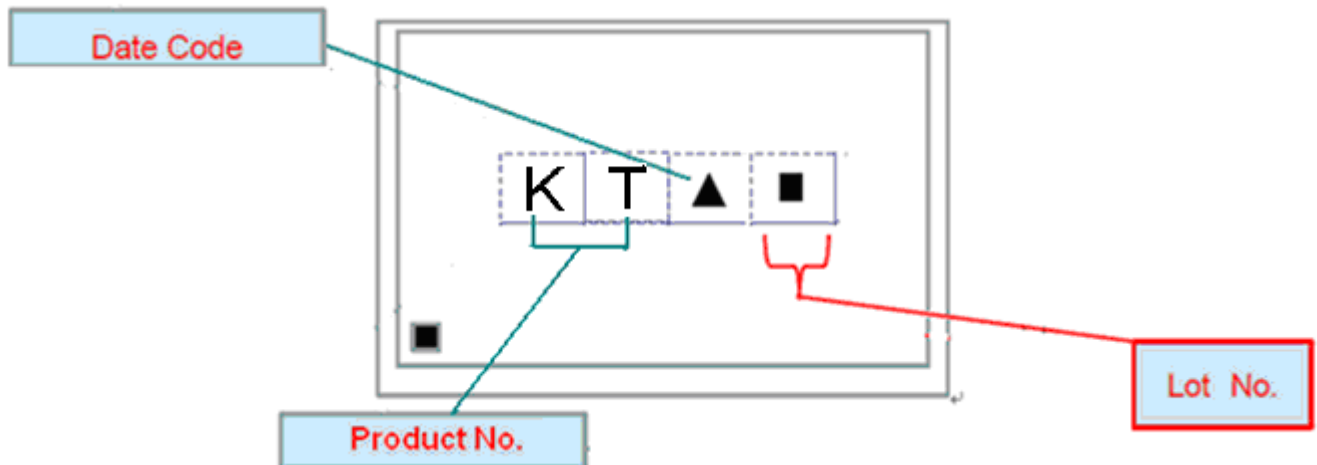
OUTLINE DRAWING:



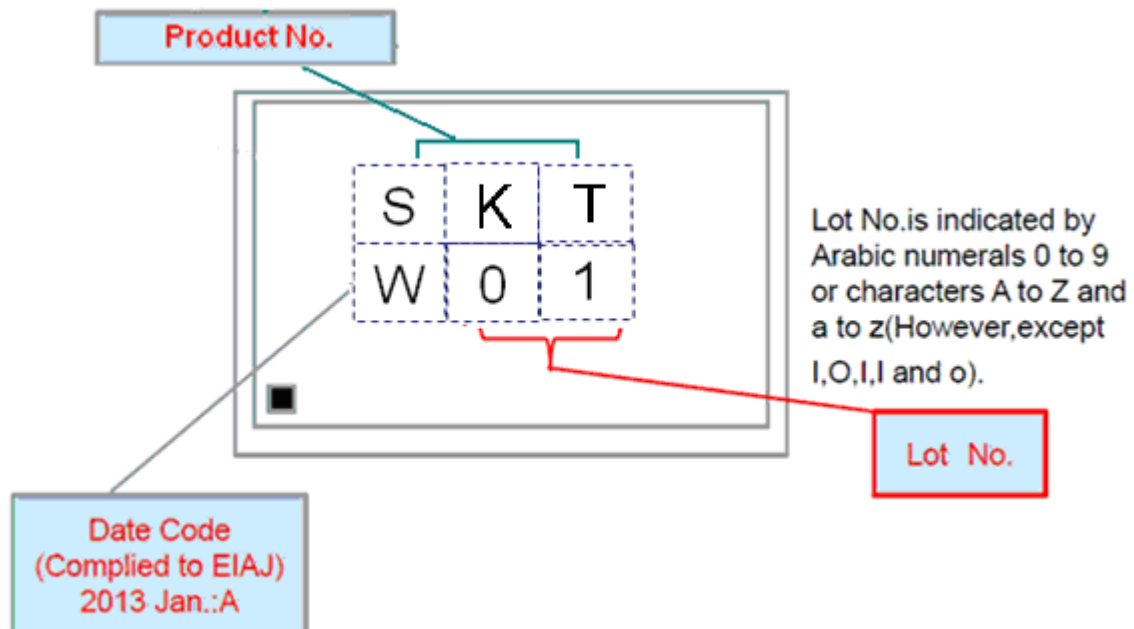
Marking Descriptions	
S	Product No 1
KT	Product No 2
X	Date Code(Year+Month)
YY	Lot No

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

Top View (Sample Production):



Top View (Mass Production):

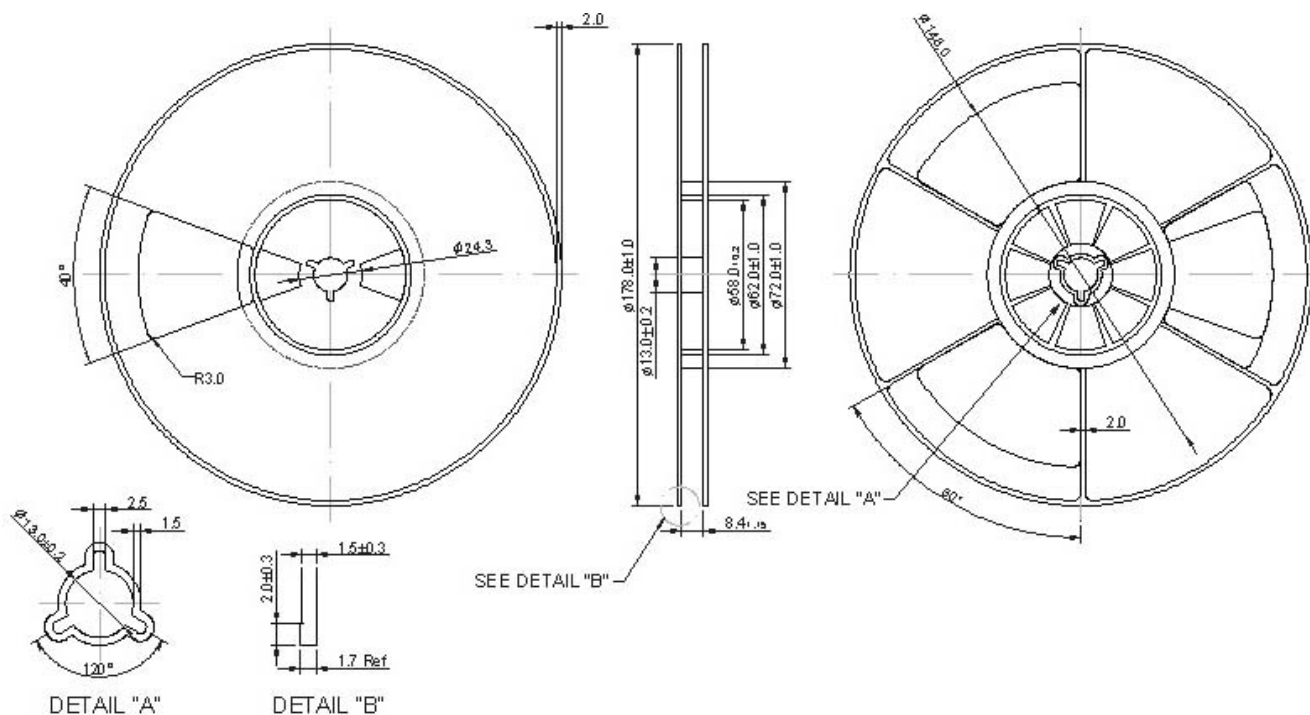


Product date Code (EIAJ):

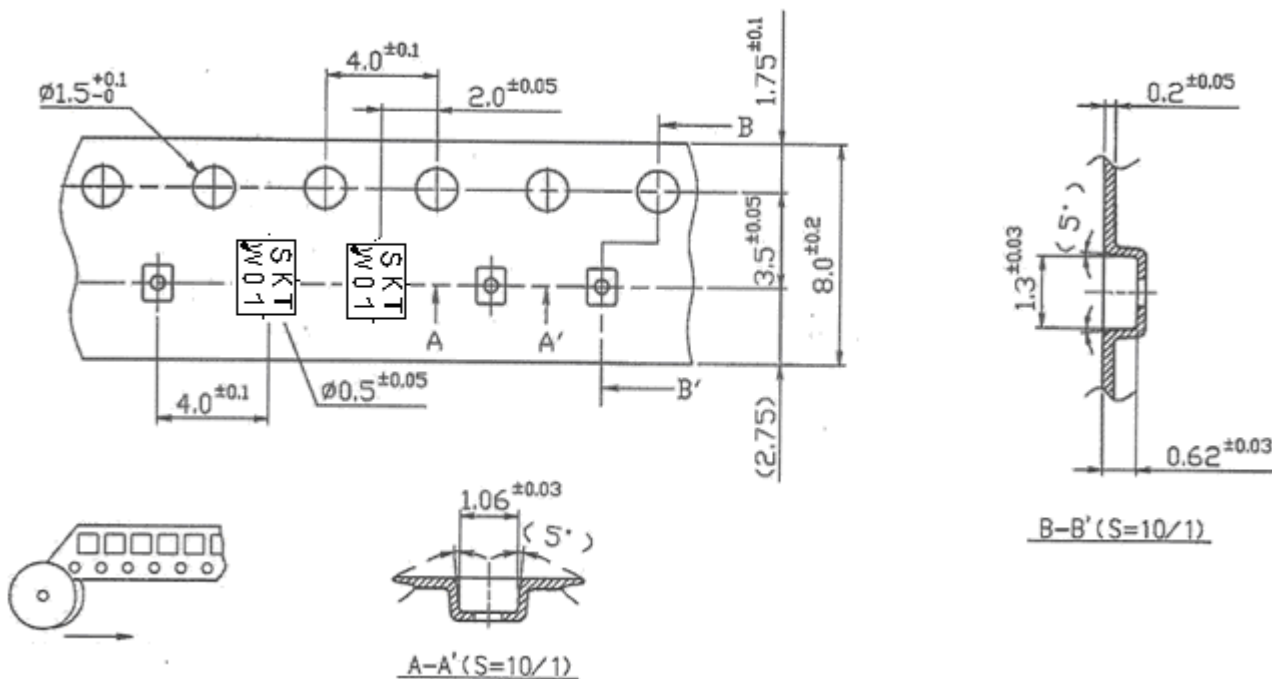
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

**PACKING:
REEL DIMENSION**

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 (20~40sec).
4. Time: 2 times.

