

SAW Resonator 1600.00 MHz

MODEL NO.: TC0671A

Rev. NO. 1.0

A. MAXIMUM RATING:

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

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device

B. ELECTRICAL CHARACTERISTICS:

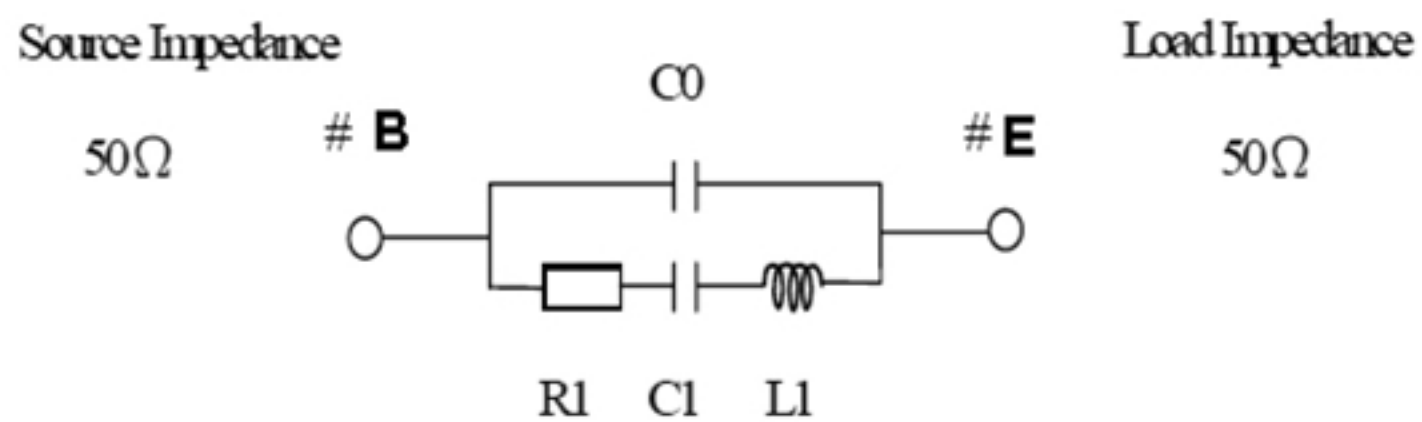
Characteristic	Units	Min	Type	Max
Center frequency F_c	MHz	1599.7	1600	1600.3
Insertion Loss IL	dB		0.84	2.5
Unload quality factor	-		7394	
Motional Capacitance C₁	fF		3.9018	
Motional Inductance L₁	μH		2.5366	
Motional Resistance R₁	Ohm		3.4482	
Parallel Capacitance C₀	pF		2.0104	
Frequency Temperature coefficient (TC _f)	ppm / °C		-0.05 Typ.	
Turnover T ₀	°C		25	
Package size	mm		3.0 x 3.0	
Frequency Aging Absolute (First Year)	ppm/yr		±10	

*Frequency define by Yr(real) peak at room temperature.

$$\text{Temperature dependence of } f_c: f_c(T_A) = f_c(T_0) (1 - TC_f(T_A - T_0))^2$$

C. EQUIVARENT CIRCUIT:

One-Port Resonator:

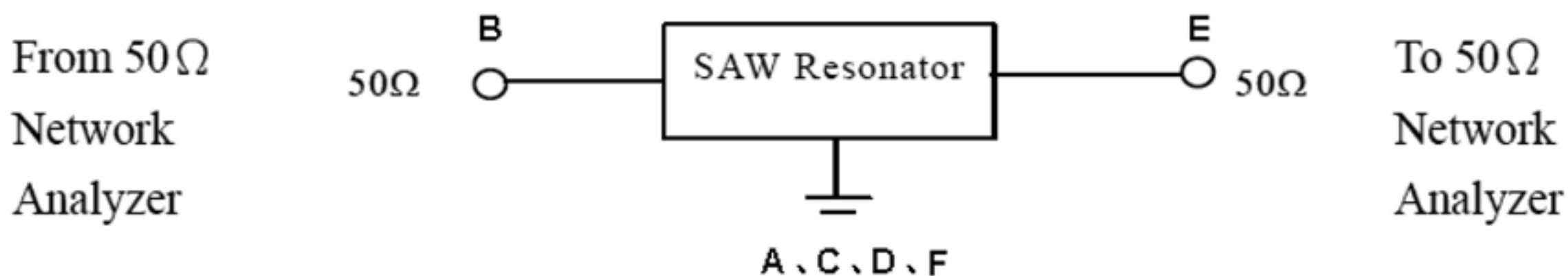


D. FREQUENCY CHARACTERISTICS:

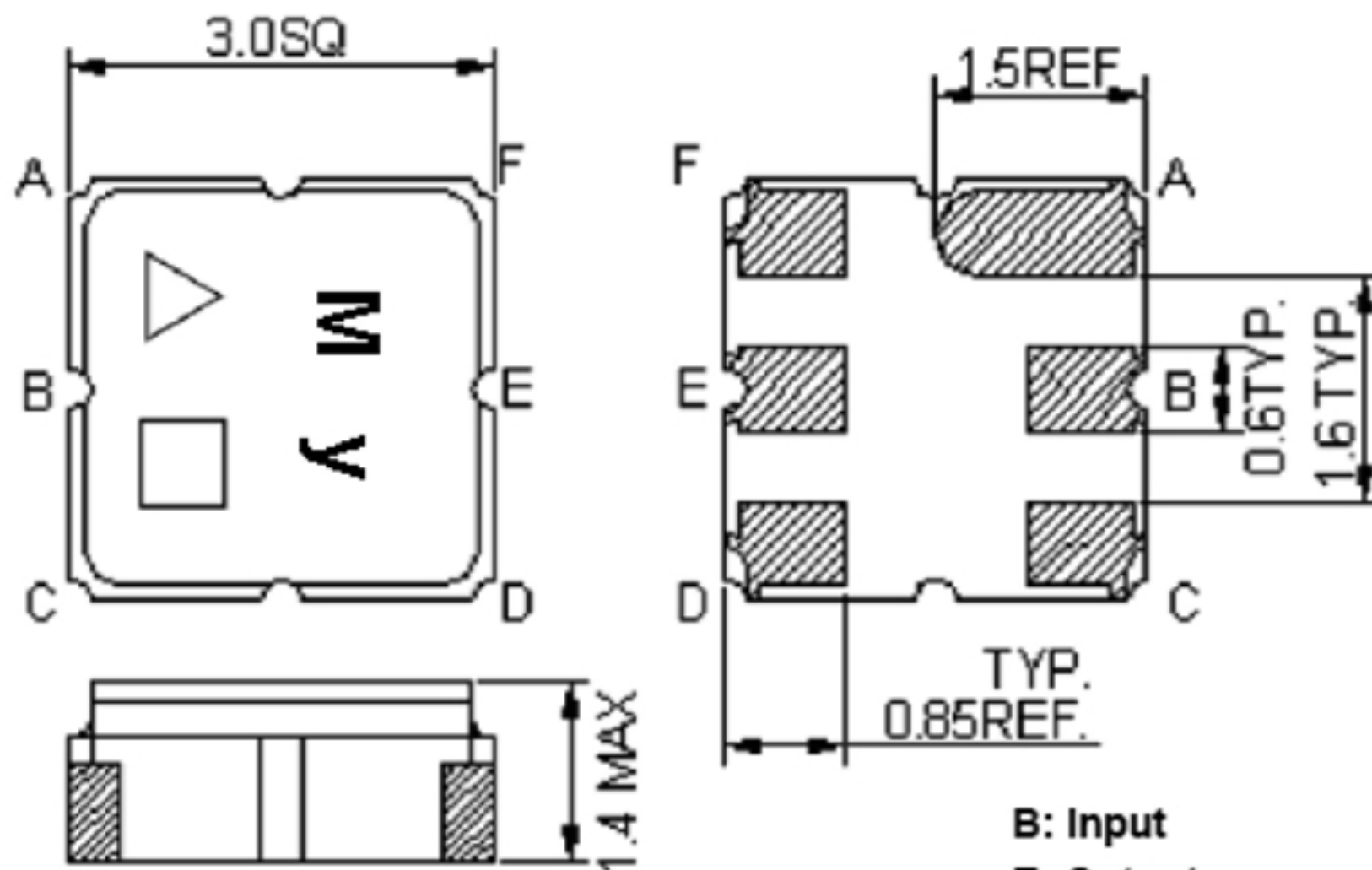


E. TEST CIRCUIT:

Network analyzer



F. MECHANICAL DIMENSIONS:



B: Input

E: Output

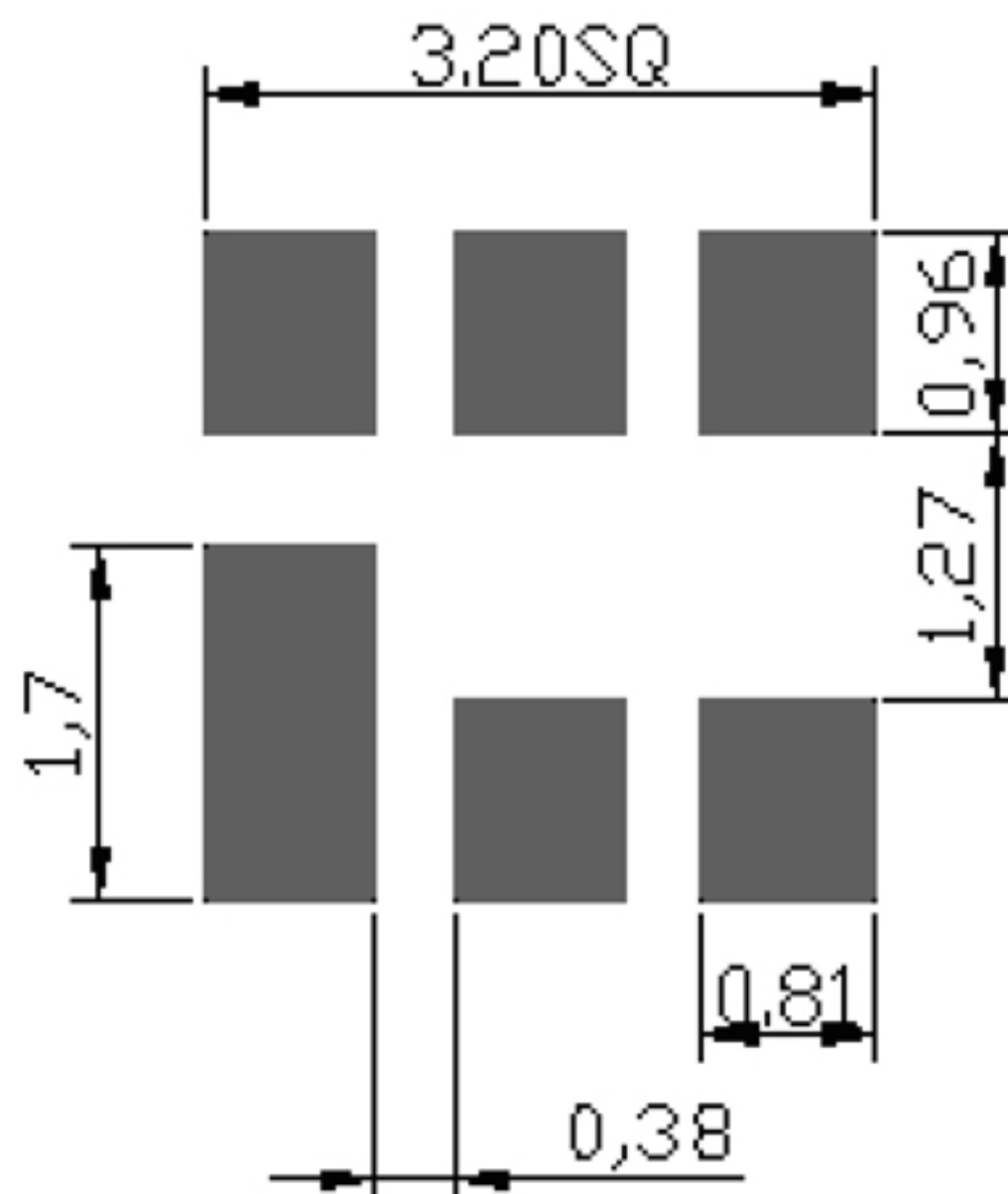
A, C, D, F: Ground

\triangle : Year Code (2009->9, 2010->0, ..., 2018->8)

\square : Date Code (Follow the table from planner each year) **Unit: mm**

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

G. PCB FOOTPRINT:



I. 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.

