



NIHON DEMPA KOGYO CO., LTD  
SAW FILTER SPECIFICATIONS



Date: March 29,2006

THIS SPECIFICATION SHEET IS PROVIDED TO:

For specifying specifications of following product:

ISF-433.920000MHz-V0  
(NDK Part Number)

\_\_\_\_\_  
(Your Part Number)

This document contains:

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Prepared By:

CONFIRMED BY:

Checked By:

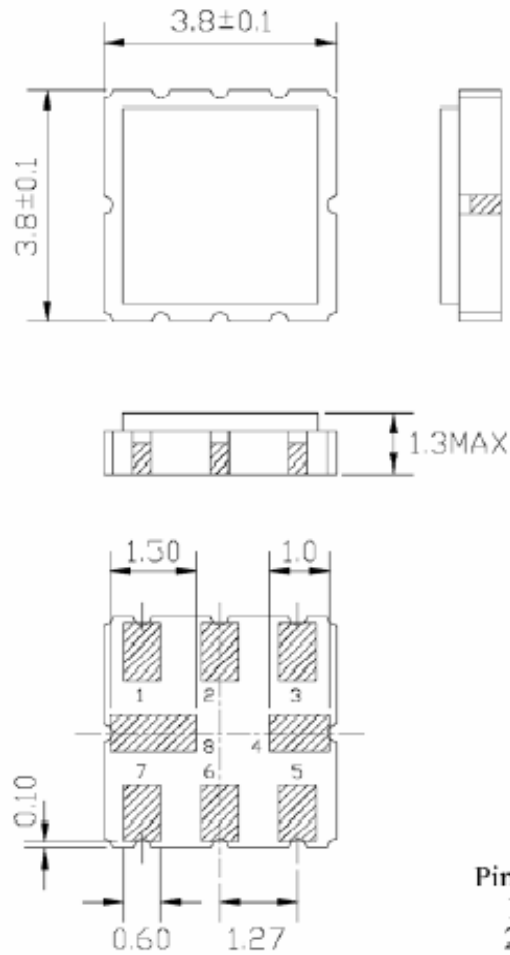
For future reference, we thank you to confirm the specifications and send one copy back to us.



## ● ELECTRICAL PARAMETERS

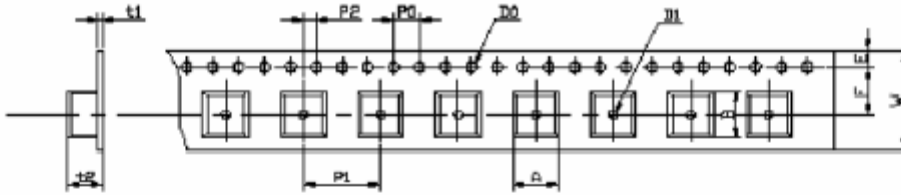
<u>Parameter</u>	<u>Symbol</u>	<u>Condition</u>	<u>Specifications</u>	<u>Unit</u>
1.Center Frequency	F <sub>0</sub>	At 25 ℃	433.920	MHz
2.Insertion Loss		433.80MHz ~ 434.120MHz	4.5 Max.	dB
3.Pass Band Ripple		433.76MHz ~ 434.16MHz	2.0 Max.	dB
4.Operating Temp. Range	Topr		-40 to +85	℃
5.Storage Temp. Range	Tstg		-45 to +85	℃
6.DC Voltage			10	VDC
7.AC Voltage			10V (50Hz / 60Hz)	Vpp
8.Source Power			10	dBm
9.Relative Attenuation		10.00MHz ~ 414.00MHz 414.00MHz ~ 428.00MHz 428.00MHz ~ 432.92MHz 434.92MHz ~ 442.00MHz 442.00MHz ~ 550.00MHz 550.00MHz ~ 1000.00MHz	45.0 Min. 40.0 Min. 15.0 Min. 10.0 Min. 35.0 Min. 45.0 Min.	dB
10.Temperature Coefficient of Frequency			-0.03 Typ.	ppm/K <sup>2</sup>
11.Series Inductance L			33 Typ.	nH
12.Shunt Capacitance C			5.6 Typ.	pF

● OUTLINE DIMENSIONS (UNIT:MM)



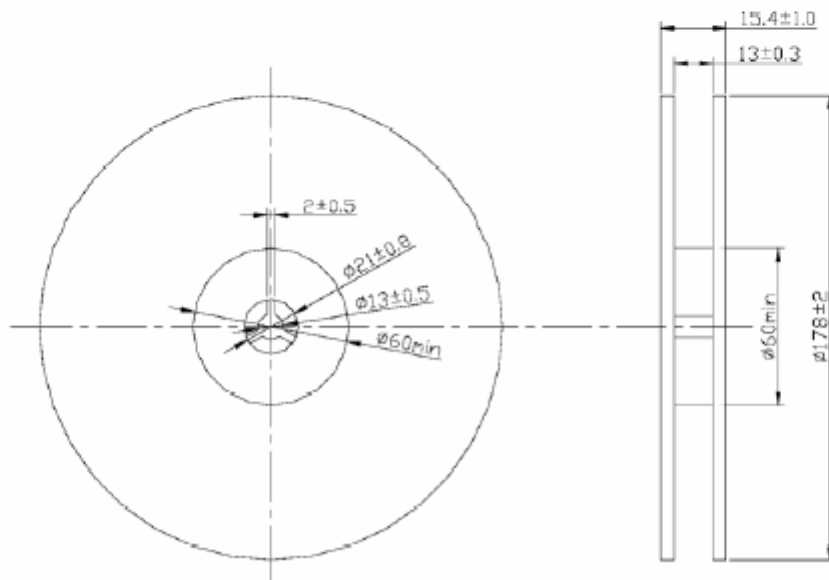
Pin No.	Function
1	Input Ground
2	Input
5	Output
6	Output Ground
4,8	Case-Ground
3,7	to be Grounded

● PACKAGE



W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	4.0	2.0	Φ 1.5	Φ 1.5	0.31	1.95	3.3	3.3
±0.3	±0.1	±0.1	±0.2	±0.1	±0.2	±0.1	±0.25	max.	max.	max.	max.

Reel Dimensions(unit: mm)



1,000 pcs/reel



● **HANDLING CAUTIONS**

1. Mechanical Shock: The components shall remain within the electrical specifications after three one-half sine shock pulses(3000g's for 0.3ms) in each direction(for six total) along each of the three mutually perpendicular axes for a total of 18 shocks.
2. Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20~55Hz, amplitude 1.5mm, X,Y,Z, direction, for 2 hours.
3. Leak Test
  - 3.1 Gross Leak Test: Submerge samples into at +85 ℃ water for at least 1 minute. Carefully observe the samples. No bubbles should be seen.
  - 3.2 Fine Leak Test: Expose samples for testing to 60 PSIG Helium gas for 2 hours. Then transfer the same samples to another chamber and draw a vacuum. Measure the leak rate. Failure is defined if the leak rate exceeds  $5 \times 10^{-8}$  atm cc/sec Helium.
4. High Temperature Storage: The components shall remain within the electrical specifications after being kept at the 85 ℃  $\pm$  2 ℃ for 960 hours, then kept at room temperature for 2 hours.
5. Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the -40 ℃  $\pm$  2 ℃ for 960 hours, then kept at room temperature for 2 hours.
6. Temperature Cycle: The components shall remain within the electrical specification after 32 cycles of high and low temperature testing (one cycle: 80 ℃ for 30 minutes  $\rightarrow$  25 ℃ for 20 seconds  $\rightarrow$  -40 ℃ for 30 minutes) than kept at room temperature for 2 hours.
7. Humidity Test: The components shall remain within the electrical specifications after being kept at the condition of ambient temperature 70 ℃, and 90~95% RH for 240 hours, then kept at room temperature and normal humidity for 4 hours.
8. Solder-heat Resistance: The components shall remain within the electrical specifications after dipped in the solder at 260 ℃  $\pm$  5 ℃ for 10 to 11 seconds, then kept at room temperature for 10 minutes.
9. Solderability: Solderability of terminal shall be kept at more than 80% after dipped in the solder flux at 230 ℃  $\pm$  5 ℃ for 5  $\pm$  1 seconds.
10. Storage: The components shall meet the electrical and mechanical specifications after 5 years storage, if stored within the temperature range of -40 ℃ ~+85 ℃ and in the humidity of 20 to 60% r.h.