

规格书编号

SPEC NO :

产品规格书

SPECIFICATION

CUSTOMER 客 户 : _____

PRODUCT 产 品 : _____ SAW FILTER _____

MODEL NO 型 号 : _____ HDF109A2 SMD-3 _____

MARKING 印 字 : _____ HDF119 _____

PREPARED 编 制 : _____ CHECKED 审 核 : _____

APPROVED 批 准 : _____ D A T E 日 期 : _____ 2009-8-3 _____

客户确认 CUSTOMER RECEIVED:		
审核 CHECKED	批准 APPROVED	日期 DATE

无锡市好达电子有限公司

Shoulder Electronics Limited

更改历史记录

History Record

[illegible]

1. SCOPE

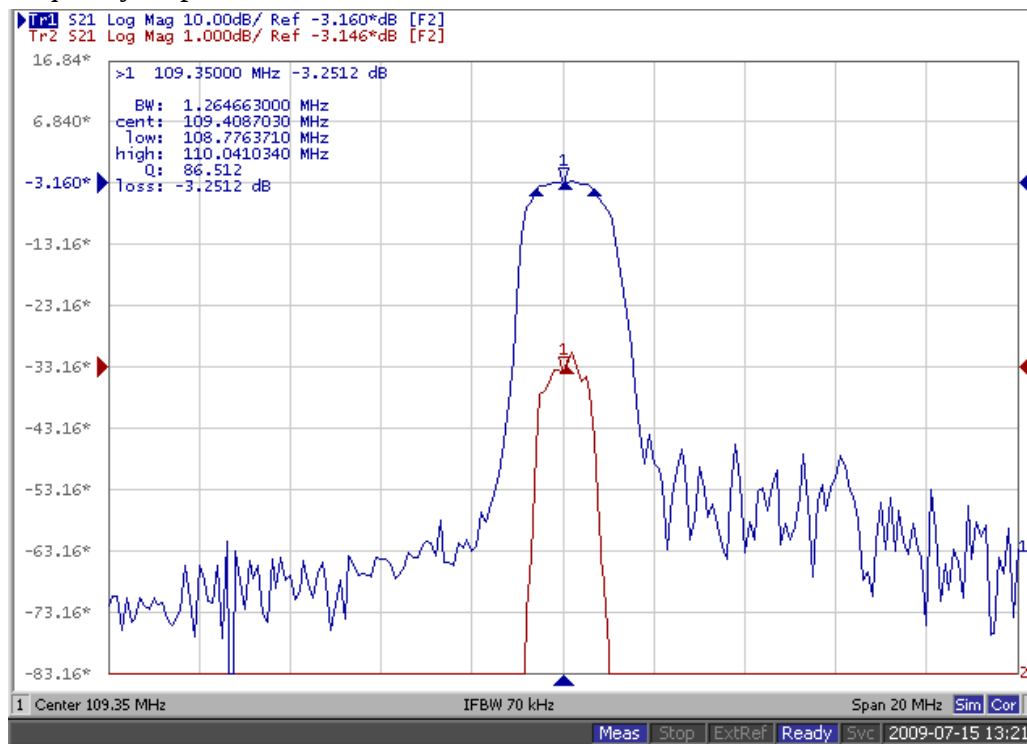
This specification shall cover the characteristics of SAW filter With F109A2 used for the page system.

2. ELECTRICAL SPECIFICATION

DC Voltage VDC	0V
AC Voltage Vpp	10V50Hz/60Hz
Operation temperature	-40°C to +85°C
Storage temperature	-45°C to +85°C
RF Power Dissipation	0dBm

Electronic Characteristics

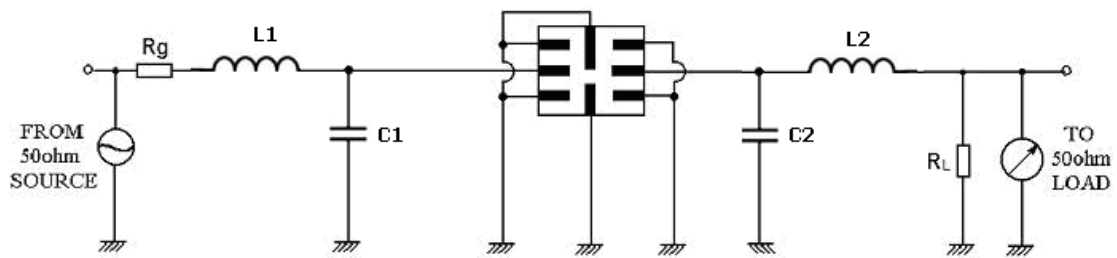
2-1. Typical frequency response



2-2.Electrical characteristics

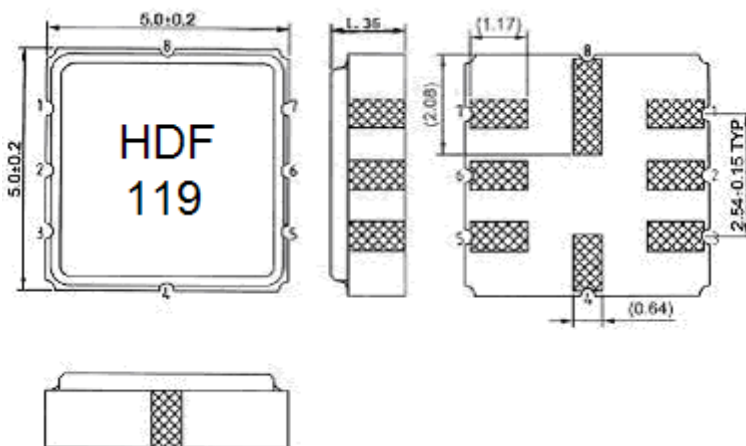
型号 Part Number	HDF109A2S3
中心频率(fo)(MHz) Nominal Center Frequency	109.35
1dB 带宽 1dB Bandwidth	±600min
3dB 带宽 3dB Bandwidth(from fo)(KHz)	±700min
阻带衰减 Stop Band Attenuation (from peak level)(dB) 1)5.00~103.70MHz 2)115.00~200.00MHz	55min 45min
插入损耗(dB) Insertion Loss(at minimum loss point)	4.5max
VSWR (at passband of 1.0 MHz) With the matching network	1.6
群延时变化 (fo+/-50KHz)(nsec.) Group Delay Variation	60
群延时波动(fo+/-500KHz)(μscc.) Absolute Group Delay	1.2max
群延时波动(fo+/-50KHz)(μscc.) Absolute Group Delay	0.85max
输入/输出阻抗 Input/output Impedance	200Ω 8pF

3.TEST CIRCUIT



$$C1=C2=11pF \quad ; \quad L1=L2=68nH$$

4. DIMENSION



2.INPUT
6. OUTPUT
1.3.5.7:GROUND
4.8 GROUND

Marking : HDF119

HD: Brand

F : Filter

119 : No.

5. ENVIRONMENTAL CHARACTERISTICS

5-1 Temperature cycling

Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +25°C for 5 Minutes and a higher temperature of +85°C for 30 Minutes. Then release the device into the room conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in 2-2.

5-2 Resistance to solder heat

Submerge the device terminals into the solder bath at $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 ± 1 sec. Then release the device into the room conditions for 4 hours. It shall meet the specifications in 2-2.

5-3 Solderability

Submerge the device terminals into the solder bath at $245^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5s, More than 95% area of the soldering pad must be covered with new solder. It shall meet the specifications in 2-2.

5-4 Mechanical shock

Drop the device randomly onto the concrete floor from the height of 1 m 3 times. the filter shall fulfill the specifications in 2-2.

5-5 Vibration

Subject the device to the vibration for 2 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 hz. The filter shall fulfill the specifications in 2-2.

6. REMARK

6.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

6.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

6.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.

7. Packing

7.1 Dimensions

(1) Carrier Tape: Figure 1

(2) Reel: Figure 2

(3) The product shall be packed properly not to be damaged during transportation and storage.

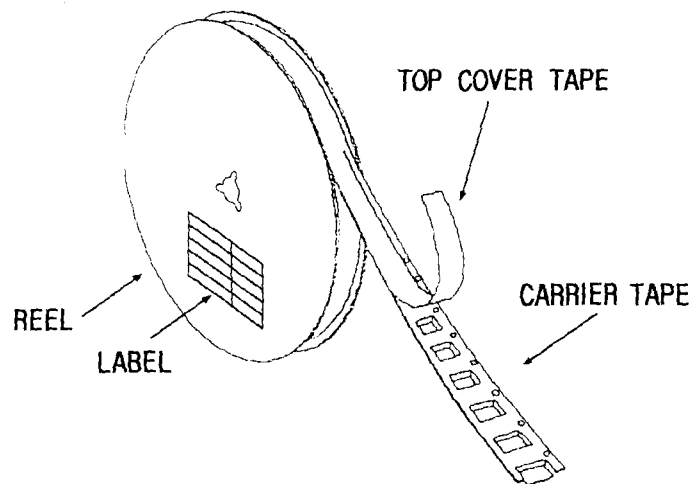
7.2 Reeling Quantity

1000 pcs/reel 7"

3000 pcs/reel 13"

7.3 Taping Structure

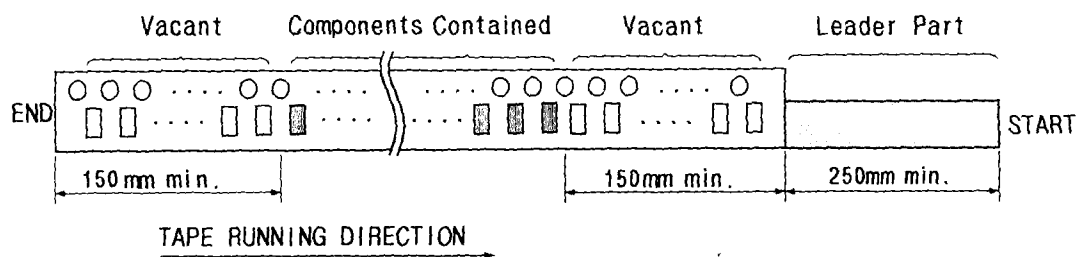
(1) The tape shall be wound around the reel in the direction shown below.



(2) Label

Device Name	
User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.



8. TAPE SPECIFICATIONS

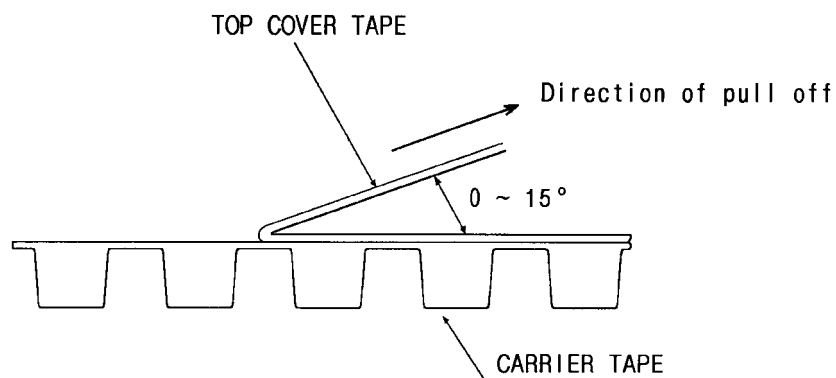
8.1 Tensile Strength of Carrier Tape: 4.4N/mm width

8.2 Top Cover Tape Adhesion (See the below figure)

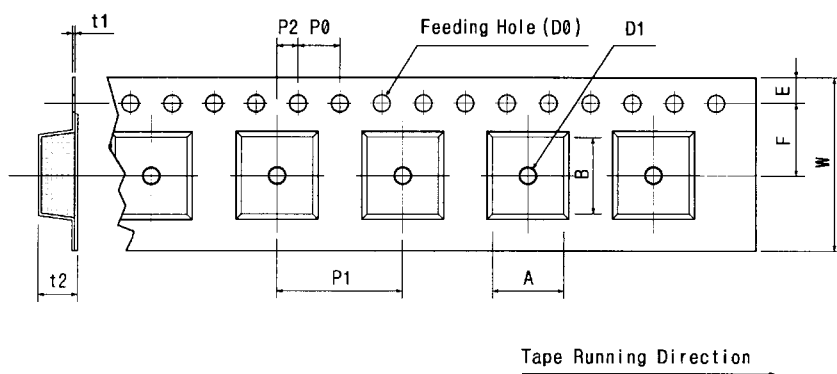
(1) pull off angle: 0~15°

(2) speed: 300mm/min.

(3) force: 20~70g



[Figure 1] Carrier Tape Dimensions

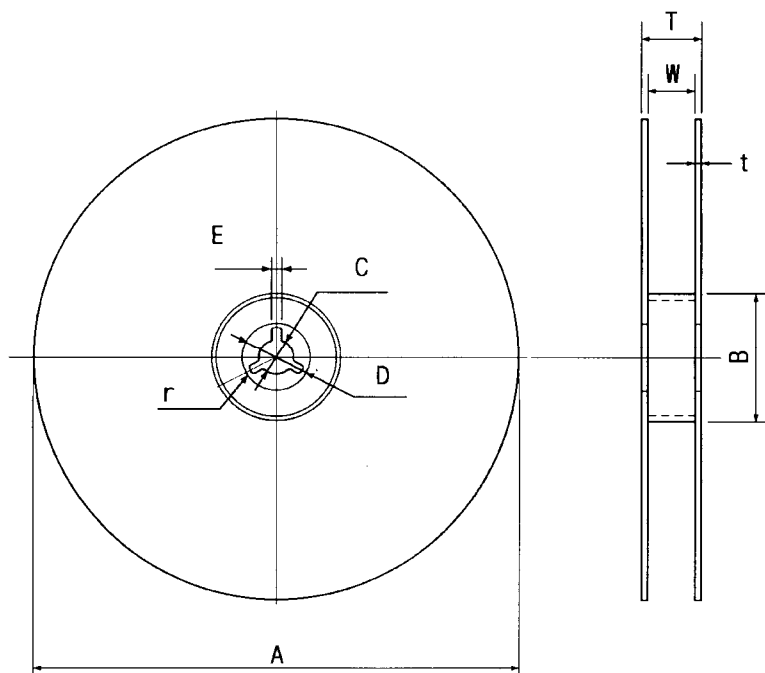


[Unit:mm]

W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0± 0.3	5.5 ±0.05	1.75± 0.1	4.0 ±0.1	8.0 ±0.1	2.0 ±0.05	Ø1.5± 0.1	Ø1.0 ±0.25	0.3 ±0.05	2.10± 0.1	6.40± 0.1	5.20± 0.1

[Figure 2]

[Unit:mm]



A	B	C	D	E	W	t	r
Ø330	Ø100	Ø13	Ø21	2	13	3	1.0
±1.0	±0.5	±0.5	±0.8	±0.5	±0.3	max.	max.