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：HDF374E SMD-3

PREPARED 编 制：_____ CHECKED 审 核：_____

APPROVED 批 准：_____ D A T E 日 期：2006-5-11

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

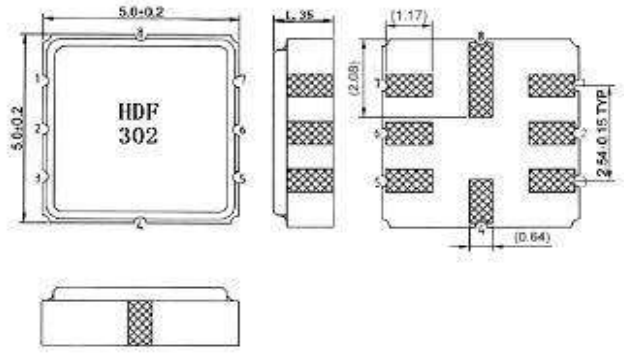
Shoulder Electronics Limited

更改历史记录
History Record

更改日期 Date	规格书编号 Spec. No.	产品型号 Part No.	客户产品型号 Customer No.	更改内容描述 Modify Content	备注 Remark

1.Package

Ceramic package QCC8C Dimensions in mm,approx.weight 0.1g



Pin configuration

3	Input
2	Input or input ground
7	Output
6	Output or output ground
4,8	Case ground
1,5	To be grounded

2..Center Frequency (MHz): 374.00

3.Performance

3.1 Absolute Maximum Ratings

Rating	Value	Units
CW RF Power	+0	dBm
DC Voltage between	±30	VDC
Case Temperature	-35 to +85	℃

3.2 Electrical Characteristics

Characteristic	Minimum	Typical	Maximum	Units
Nominal Frequency f_N	--	374.00	--	MHz
Insertion Loss(including matching	--	8.5	10.5	dB
3 dB Bandwidth	17	20.5	--	MHz
Amplitude ripple (p-p) f_N±7MHz	--	0.5	1	dB
Group delay ripple (p-p) f_N±7MHz	--	40	100	ns
Triple transit suppression	30	40	--	dB

Relative attenuation					
309~352	MHz	40	50	--	dB
352~357.5	MHz	35	50	--	dB
390.5~392	MHz	35	45	--	dB
392~396	MHz	35	40	--	dB
396~439	MHz	38	42	--	dB
439~454	MHz	40	45	--	dB
Ultimate Rejection		50	--	--	dB
Operating Temperature Range		-40		+85	℃

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling

NOTES:

1.Frequency aging is the change in f_c with time and is specified at +65℃or less. Aging may exceed the specification for prolonged temperatures above +65℃. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.

2.The frequency f_c id the frequency of minimum IL with the resonator in the specified test fixture in a 50 Ω test system with VSWR ≤ 1.2 : 1. Typically, $f_{oscillator}$ or $f_{transmitter}$ is less than the resonator f_c.

3.Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.

4.Unless noted otherwise , case temperature T_c=+25℃±2℃.

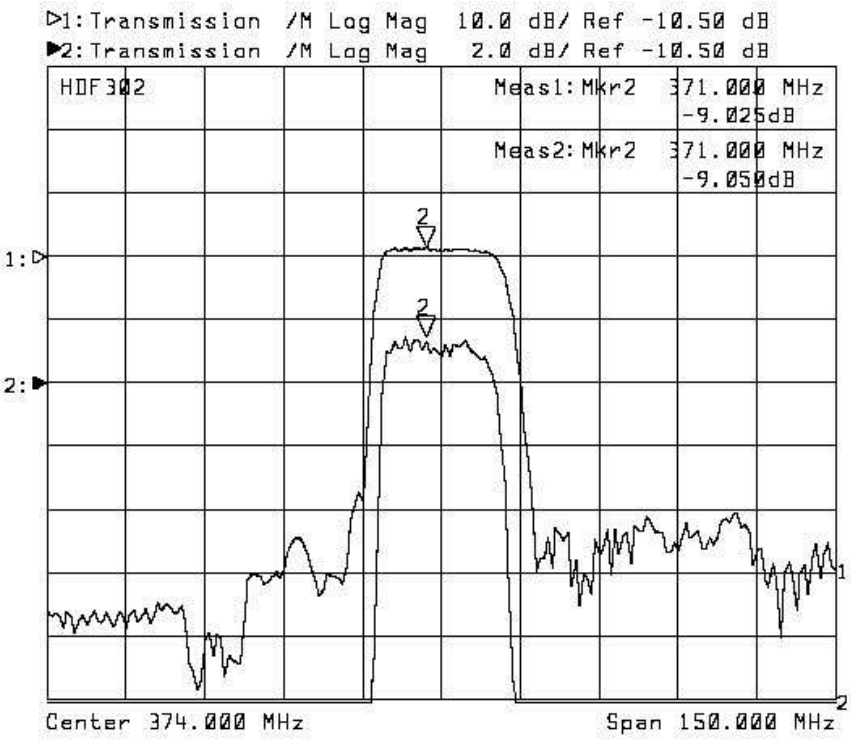
5.The design, manufacturing process, and specifications of this device are subject to change without notice.

6.Derived mathematically from one or more of the following directly measured parameters: f_c, IL, 3 dB bandwidth, f_c versus T_c , and C_0.

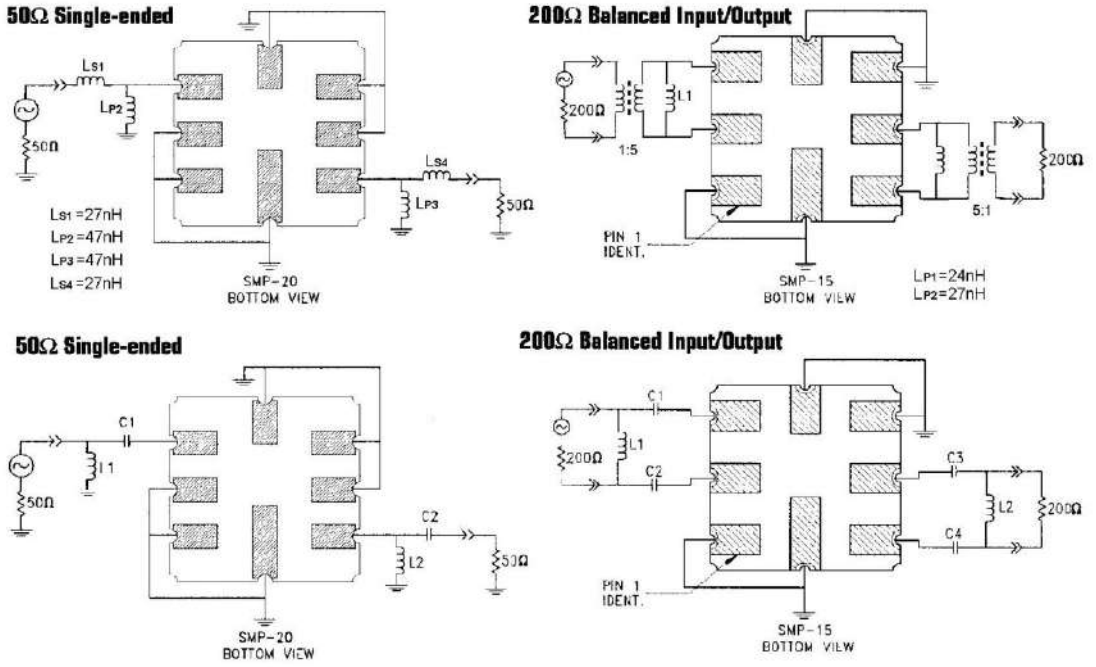
7.Turnover temperature, T_O, is the temperature of maximum (or turnover) frequency, f_O, The nominal center frequency at any case temperature , TC, may be calculated from :$f = f_O [1\text{-}FTC (T_O\text{-}T_C)^2]$ .Typically, oscillator $T_0$is 20^o less than the specified resonator T_o.

8.This equivalent RLC model approximates resonator performance near the resonant frequency and is provided for reference only . The capacitance C_0 is the measured static (nonmotional) capacitance between either pin 1 and ground or pin 2 and ground .The measurement includes case parasitic capacitance

4. Typical Frequency Response



5. Impedance Matching



L1 = 9.5 nH, L2 = 12 nH
C1 = 15 pf, C2 = 7 pf

L1 = 27 nH, L2 = 16nH
C1 = 470 pf, C2 = 470 pf , C3 = 15 pf, C4 = 15 pf

6.Reliability

6.1 Mechanical Shock: The components shall remain within the electrical specifications after 1000 shocks, acceleration 392m/s^2,duration 6 milliseconds.

6.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20 Hz , amplitude 1.5mm , for 2 hours.

6.3 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the 85℃±2℃for 48 hours, then kept at room temperature for 2 hours.

6.4 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the -25℃±2℃for 48 hours ,then kept room temperature for 2 hours.

6.5 Temperature Cycle: The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing(one cycle: 80℃for 30 minutes →25℃for 5 minutes → -25℃for 30 minutes) than kept at room temperature for 2 hours.

6.6 Solder-heat Resistance : The components shall remain within the electrical specifications after dipped in the solder at 260℃for 10±1seconds,then kept at room temperature for 2 hours .(Terminal must be dipped leaving 1.5 mm from the case).

6.7 Solder ability: Solder ability of terminal shall be kept at more than 80% after dipped in the solder flux at 230℃ ± 5℃for 5±1 seconds.

7.Remarks

7.1 Static voltage

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

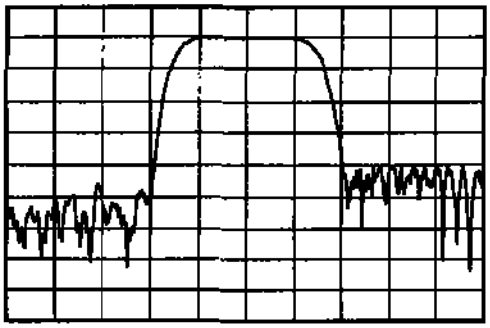
7.2 Ultrasonic cleaning

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

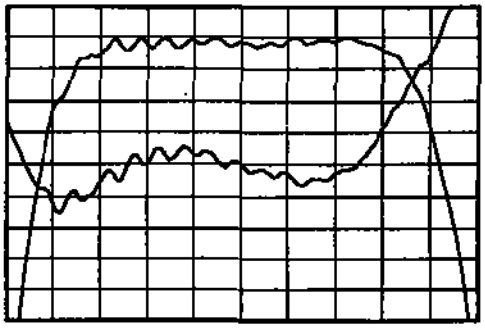
7.3 Soldering

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

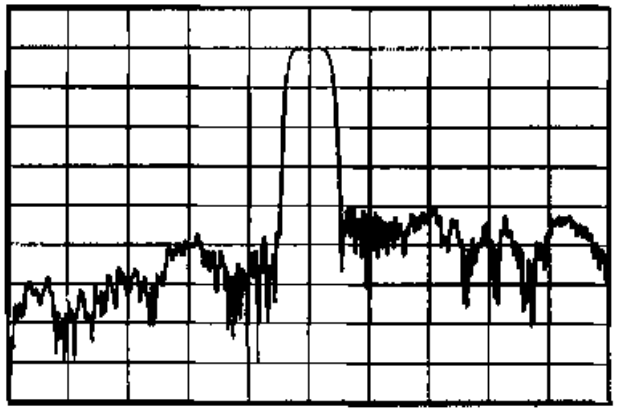
Performance of SAWTEK855898



Horizontal: 7.5 MHz/Div
Vertical: 10 dB/Div



Horizontal: 150 kHz/Div
Vertical: 1 dB/Div, 5 degrees / Div



Horizontal: 30 MHz / Div
Vertical: 10 dB / Div

8. Packing

8.1 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.

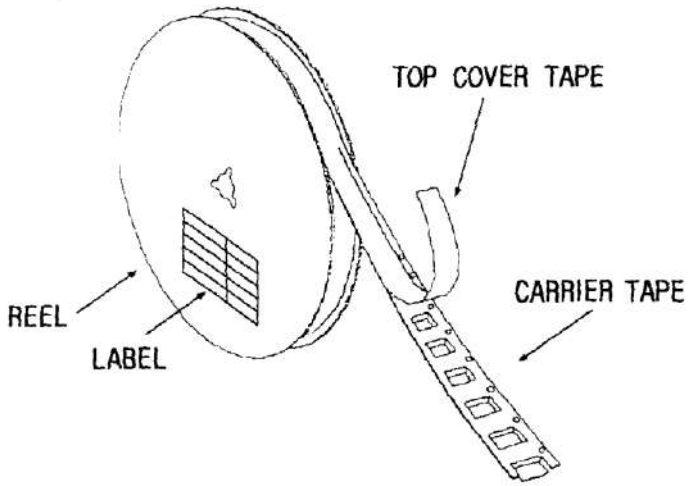
8.2 Reeling Quantity

1000 pcs/reel 7”

3000 pcs/reel 13”

8.3 Taping Structure

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

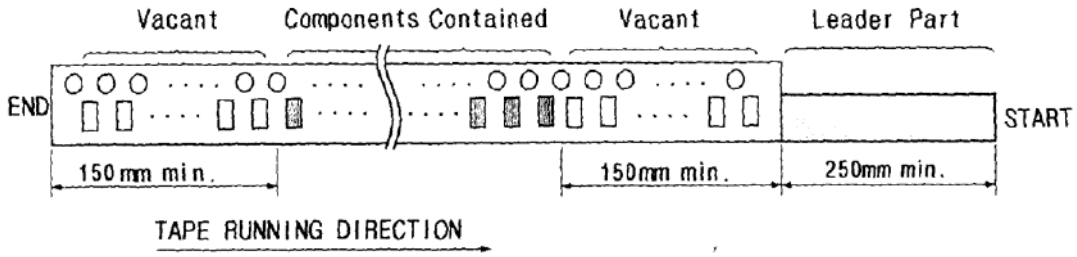


(2) Label

Device Name	

User Product Name	
Quantity	
Lot No.	

(3) Leader part and vacant position specifications.

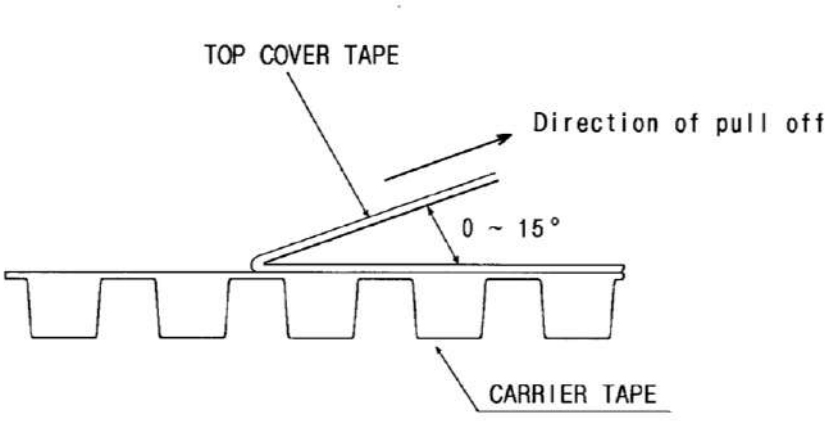


9. TAPE SPECIFICATIONS

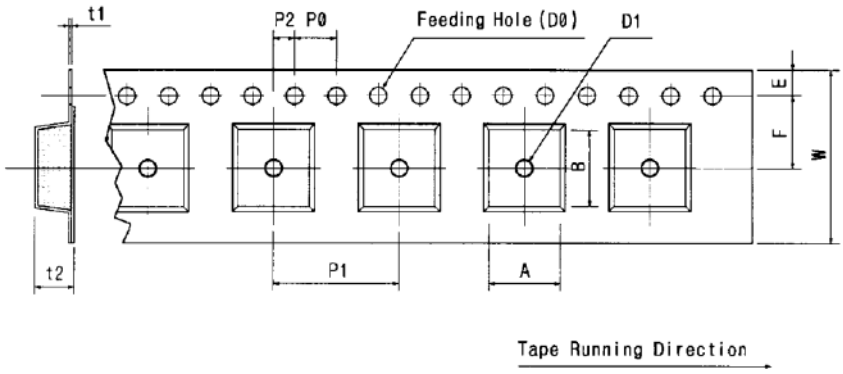
9.1 Tensile Strength of Carrier Tape: 4.4N/mm width

9.2 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

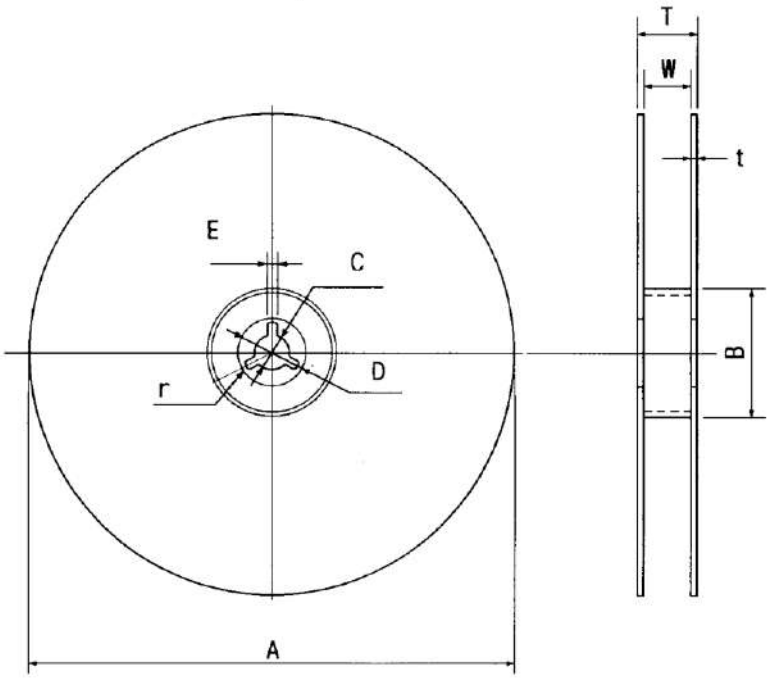


[Unit:mm]

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 ±1.0	Ø100 ±0.5	Ø13 ±0.5	Ø21 ±0.8	2 ±0.5	13 ±0.3	3 max.	1.0 max.