Serial No. : 2017-0388
DATE : 2017/04/28

上海大真空国際貿易有限公司

ITEM : MONOLITHIC CRYSTAL FILTER

TYPE :	DSF633SDF
NOMINAL FREQUENCY :	73.350MHz
SPEC No. :	1D73312GR2

If there is a change in this specifications, the specification number may be changed.

RECEIPT	
DATE	
RECEIVED	(signature) (name)

General Manufacturer of Quartz Devices
DAISHINKU CORP.
1389 Shinzaike, Hiraoka-cho, Kakogawa, Hyogo
675-0194 Japan
Phone (81)79-425-3141 Fax (81)79-425-1134
http://www.kds.info/index_en.htm

C.ENG. R. Kohda

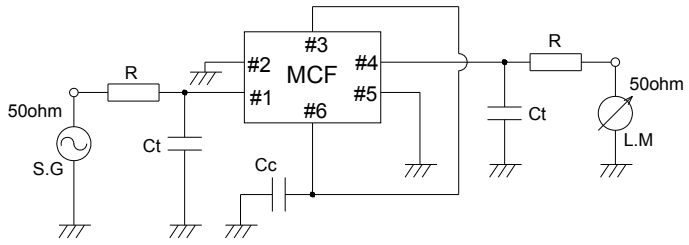
ENG. A. Matumoto

1.Model	1D73312GR2	
2.Parts number(user)		
3.Type	DSF633SDF(4pole)	
4.Electrical performances		
(1)Nominal frequency	73.350	MHz(Fundamental)
(2)Pass bandwidth	±6.00	kHz min./3dB
(3)Stop bandwidth	±25.00	kHz max./40dB
(4)Ripple	1.5	dB max.
(5)Insertion loss	5.0	dB max./Minimum loss
(6)Guaranteed attenuation	80	dB min./f0±910kHz
(7)Spurious	40	dB min.
(8)Maximum inputlevel	-10	dBm
(9)Terminating impedance	450	Ω±10%
	4.0	pF±0.5pF
(10)Insulation resistance	500	MΩ min./DC100V(case-in/out)

5.Temperature range

(1)Operating temperature range	-20~+70 °C
(2)Storage temperature range	-30~+85 °C

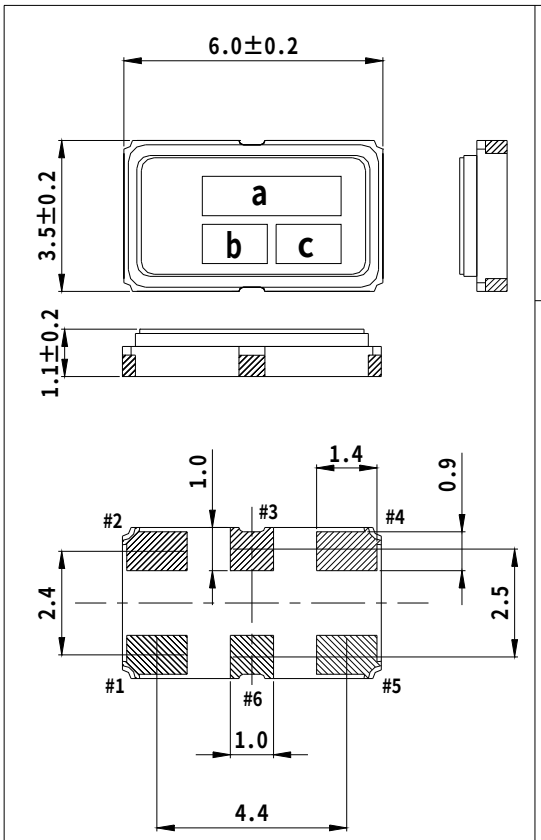
6.Test circuit



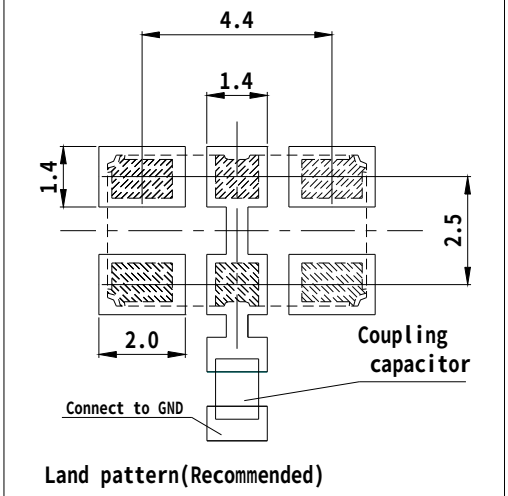
R=400 Ω
Ct=4.0 pF(floating capacity included)
Cc=9.2 pF(floating capacity included)

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7.Dimensions Unit:mm



Pin №	Connection
#1	INPUT
#2	GND
#3	Connect with #6
#4	OUTPUT
#5	GND
#6	Connect with #3



8.Marking

(a)Model 73312GR2
(b)Logo KDS
(c)Manufactured year(Y：The last digit of the year)&week（WW：Week of the year）

9.Mechanical characteristics

9.1 Shock

After dropping 3 times from the height of 50cm onto hard wooden board of thickness more than 30mm,electrical characteristics shall be satisfied.

9.2 Vibration

After supplying the following vibration,electrical characteristics shall be satisfied.

1)Vibration frequency	:	10~55Hz
2)Cycle	:	1~2min.
3)Full wave	:	1.5mm
4)Direction	:	X,Y,Z
5)Time	:	2h/XYZ each direction XYZ

9.3 Solderability

Terminals/lead-wire of specimen shall be dipped into solder melted tank at +245±5°C for 2±0.5s. After applying rosin flux, soldering portion shall be covered in over 3/4 of terminals/lead-wires dipped.

10.Environmental characteristics

Provided that measurement shall be carried out after letting it alone in the room temperature for 1h.

10.1 Storage in low temperature

After letting it alone at -30±2°C for 240±4h, electrical characteristics shall be satisfied.

10.2 Storage in high temperature

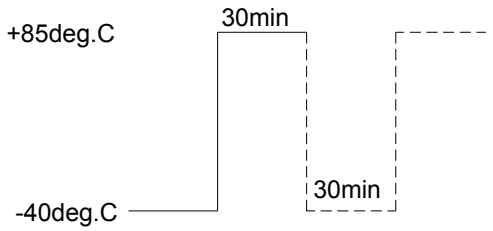
After letting it alone at +85±2°C for 240±4h, electrical characteristics shall be satisfied.

10.3 Humidity

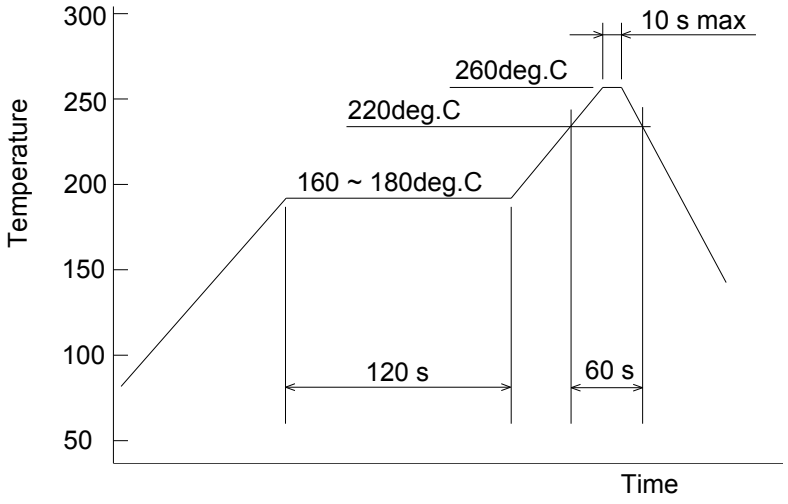
After letting it alone at +40±2°C in humidity of 90 ~ 95% for 240±4h,electrical characteristics shall be satisfied.

10.4 Temperature cycle

After supplying the following temperature 10 cycle, electrical characteristics shall be satisfied.

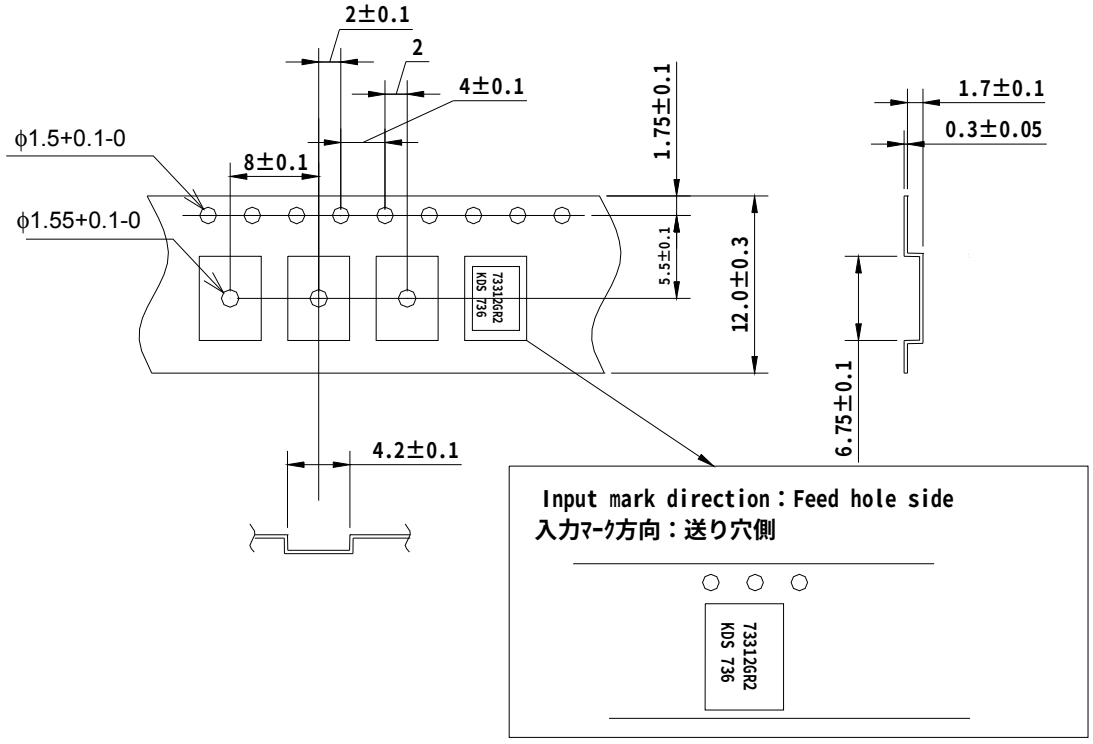


11.Reflow condition

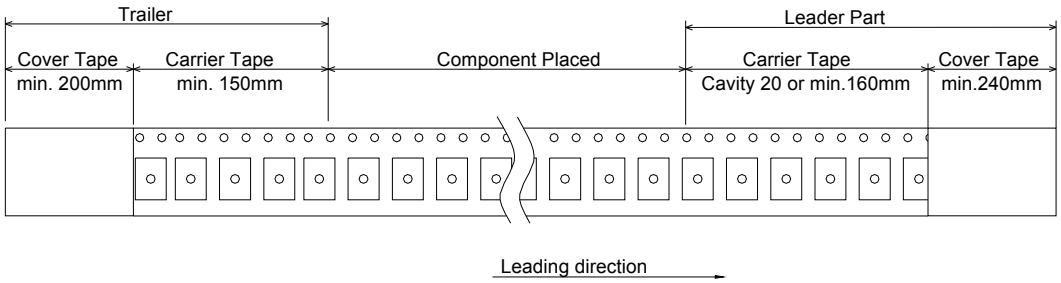


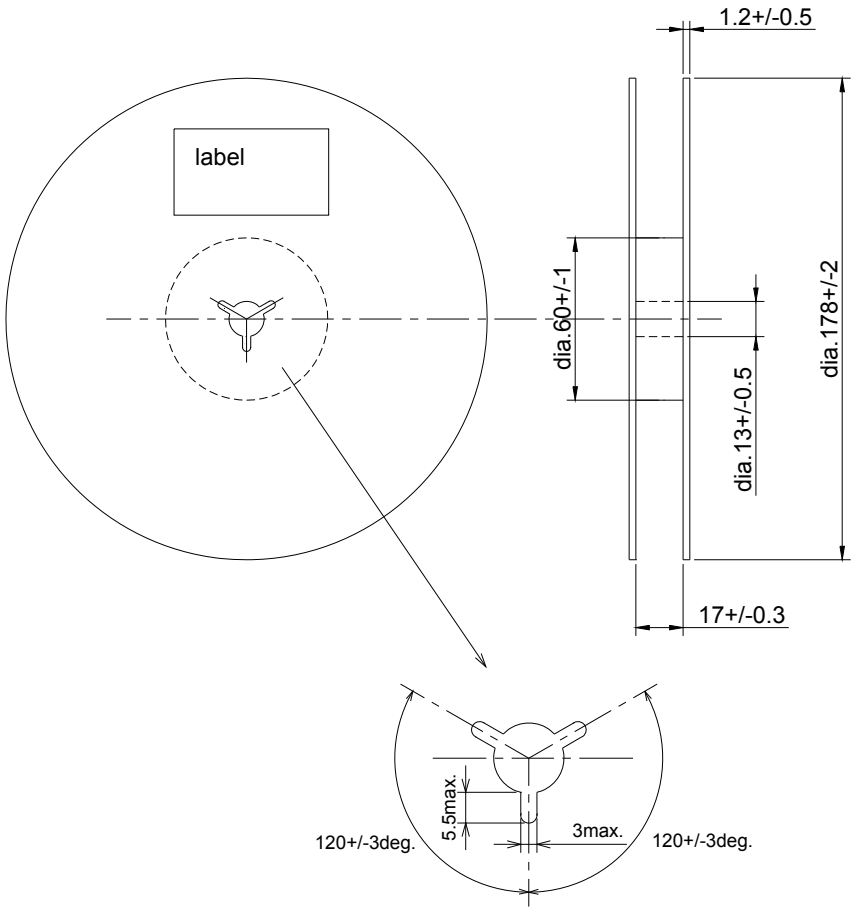
12.Emboss carrier tape & reel

12.1 Dimensions unit:mm



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12.2 Material of the tape

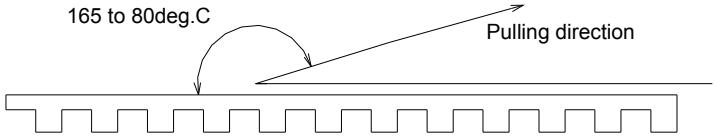
Tape	Material
Carrier tape	A-PET
Cover tape	Polyester

12.3 Standard packing quantity

1,000 pcs./reel

12.4 Release strength of cover tape

Release strength : 0.1~0.7N
Pulling direction : 165~180°
Speed : 300mm/min.



12.5 Label contents

Type

Our specification No.

Your part No.

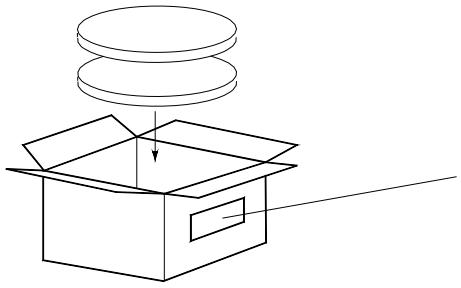
Lot No.

Nominal frequency

Quantity

13.Outer carton

Outer carton size would be changed depending on lot size.
The air cushion shall be placed at both bottom and top in outer carton.
The description label shall be put on outer carton.



Item		Lot No.	
Spec		Q'ty	pcs.
Delivery Date		Notes	

description labe

14.Handling instructions

14.1 About use of the washing liquid of a basin system, an alcoholic system, and a chlorofluorocarbon-replacing material system, it is checking that it is satisfactory. However please consult in advance about other washing liquid.
Although the check about ultrasonic washing is performed, since it is an examination with a simple substance, the check for the second time by the use state is recommended.

14.2 DSF series has sufficient intensity to fall and vibration. However when too much shock is added according to a certain cause, the use after a characteristic check is recommended.

14.3 Crystal products are designed to be compatible with automatic mounting. Be sure to have mounting test in advance by using the actual mounting machine and check that the characteristics of the products are not damaged by the automatic mounting. In the process where the boad is warped, such as board separation process,be careful that the warping does not influence the characteristics and soldering of crystal products.
Since mounting by ultrasonic welding and processing have a possibility of an excessive vibration spreading inside a monolithic crystal filter and becoming the cause of characteristic deterioration and not oscillating, it does not recommend.

14.4 Since the soldering nature of a terminal may be degraded, please avoid storage in high temperature and a humid place.
Please keep it in the place which direct rays do not hit and dew condensation does not generate.

2017-0388 REVISION RECORD

Rev No.	Date	Reason	Contents	Approved	Checked	Drawn
-	2017/04/28		The first edition	N.Kohda		A.Matumoto

DM-Z0002 ： Style-008 Ver.1