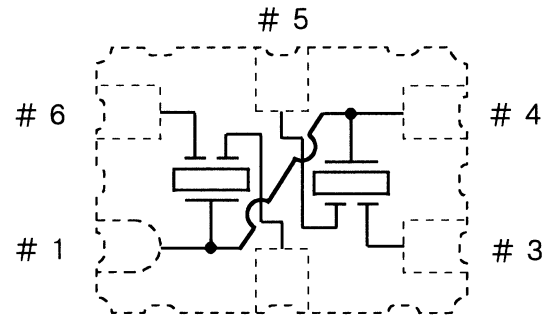
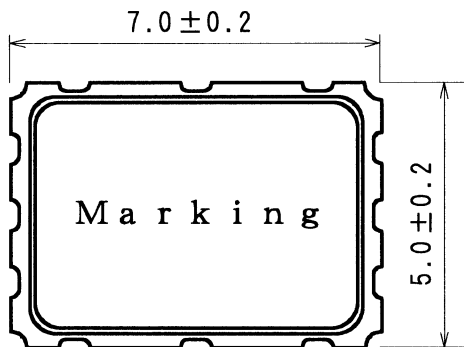


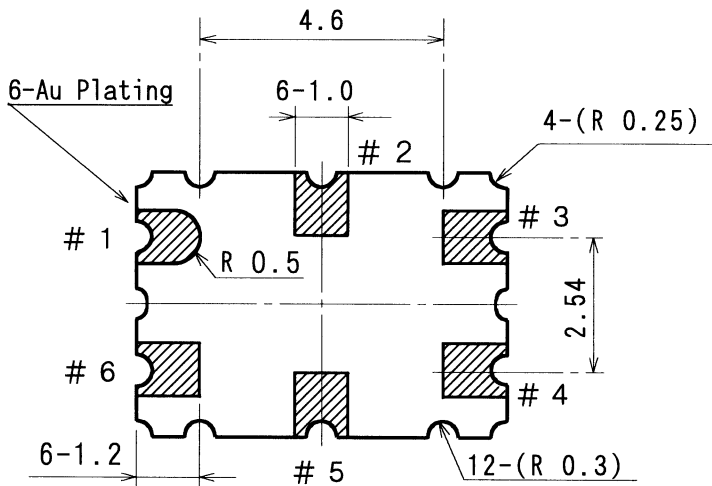
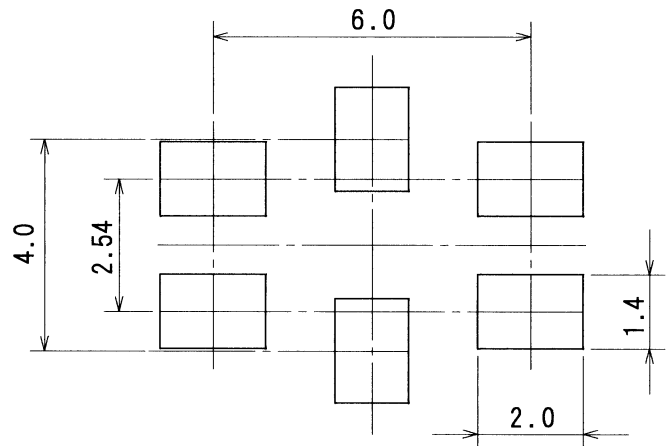
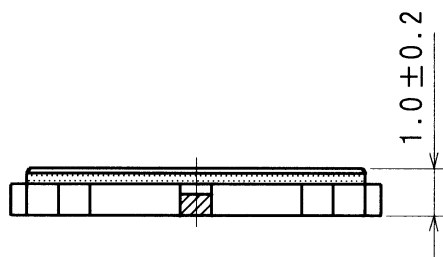
CRYSTAL FILTER SPECIFICATION

Attn.	R F P a r t s A u s t r a l i a P t y . L t d .																															
1. Holder Type	C A M (1 P a c k a g e T y p e)																															
2. Model Name	4 5 R 2 0 B																															
3. Electrical Characteristics																																
3.1 Nominal Frequency	:	45.000	MH z	(Fundamental Mode)																												
3.2 Pass Bandwidth (at 3 dB)	:	±10.0	kHz	min																												
3.3 Ripple	:	1.0	dB	max																												
3.4 Insertion Loss	:	3.0	dB	max																												
3.5 Stop Bandwidth (at 25 dB)	:	±25.0	kHz	max																												
3.6 Spurious Resuponse	:	30.0	dB	min																												
3.7 Attenuation																																
	Fo -910 kHz	:	80.0	dB	min																											
3.8 Operating Temperature	:	- 20°C ~ + 60°C																														
4. Mechanical Characteristics																																
4.1 Shock Test Condition	3times on a hard board hight of 50cm Criteria : Meets Elesctrical Characteristics																															
4.2 Vibration Test Condition	Freq.:10 to 55Hz , Amplitude: 1.5mm Or 10G Whichever is smaller. Test Time:120minutes in each direction Criteria : Meets Elesctrical Characteristics																															
4.3 Leak Test Condition	No bubble stream in FC43 at 125 ±5°C after 5minutes.																															
5. Terminating impedance																																
	Resistance	:	1000 Ω	± 10 %																												
	Capacitance	:	1.6 pF	± 0.5 pF																												
	Coupling Capacitance	:	5.0 pF	± 0.5 pF																												
6. Marking	Direct Printing																															
	4 5 R 2 0 B → Model Name																															
	45R20B KDK 7D K D K 7 D ↓ ↓ → Date Code (Last digit of year + Month code) → Manufacture Name																															
	© Month Code																															
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>Month</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>Code</td> <td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>J</td><td>K</td><td>L</td><td>M</td> </tr> </table>						Month	1	2	3	4	5	6	7	8	9	10	11	12	Code	A	B	C	D	E	F	G	H	J	K	L	M
Month	1	2	3	4	5	6	7	8	9	10	11	12																				
Code	A	B	C	D	E	F	G	H	J	K	L	M																				
DOCUMENT No.	DATE		APPROVED	APPROVED	CHECKED	DRAWN	REVISED																									
TF00-FB7009	00	Apr.04.'07	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	00																									

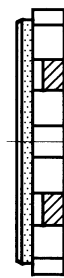
SET	ITEM	DESCRIPTION	MATERIAL	REMARKS



2
Suggested Pads(Top View)



Bottom View



- # 1 Ground
- # 2 Coupling Cap.
- # 3 Input/Output
- # 4 Ground
- # 5 Coupling Cap.
- # 6 Output/Input

UNITS : mm

APPROVED	APPROVED	CHECKED	DRAWN	D. DATE	TITLE	CAM (4 P O L E S) OUTLINE DIMENSION	
				00 '02. 1.30	DRAWING No.	T F 0 0 - G B 0 3 6 9 0 1	
				01 '04.10.13			

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■ S M D CRYSTAL ULTRASONIC CLEANING CONDITION

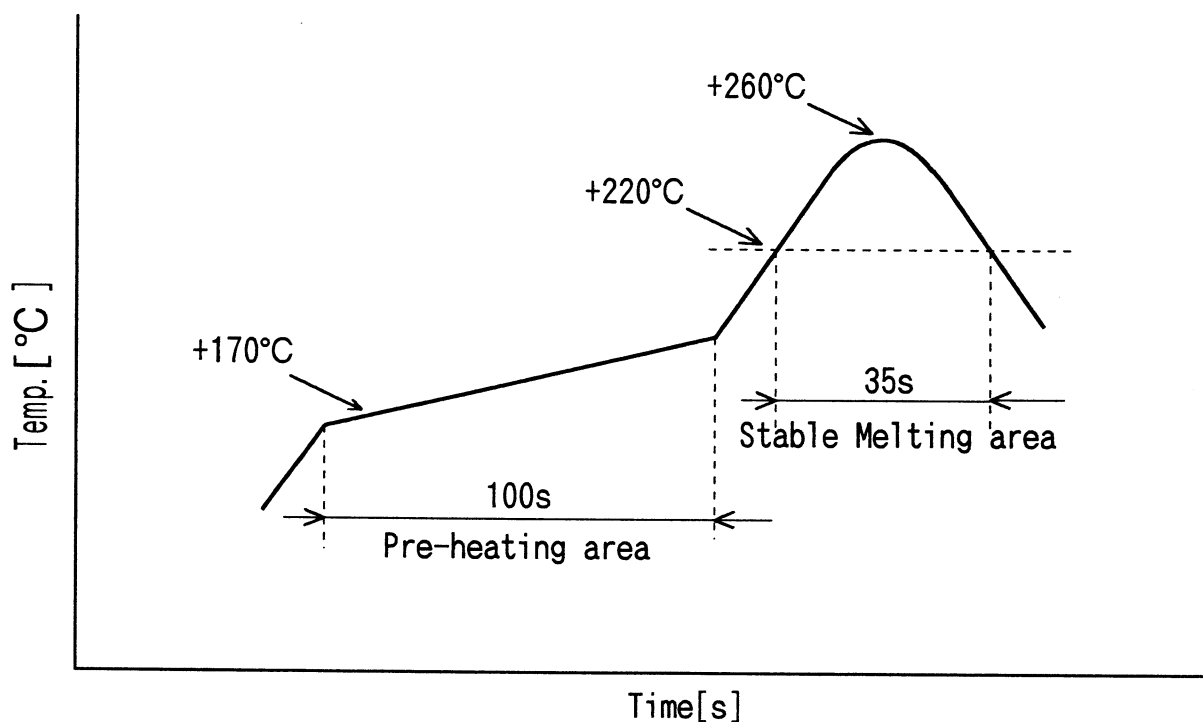
Frequency	Output of transducer	Duration	Temperature
25 ± 4 or 40^{+8}_{-4} KHz	10 ~ 30w/ $\varnothing$	60 ± 5 sec	40°C or less

■ S M D CRYSTAL SOLDERABILITY CONDITION

260°Cmax × 10sec max × 2times max

■ FOR EXAMPLE OF SOLDERABILITY CONDITION

◆Pb free reflow



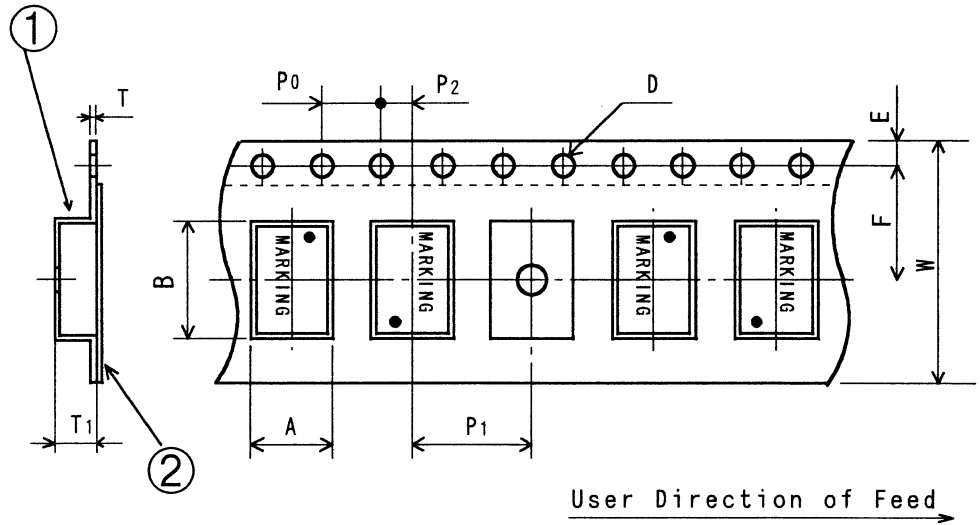
APPROVED	APPROVED	CHECKED	DRAWN	D. DATE		TITLE	Pb free REFLOW PATTERN	
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>A. Kurada</i>	00	'03.10.24	DRAWING No.		
				01	'06.03.01		T 0 0 0 - M C 0 1 7 7	0 1

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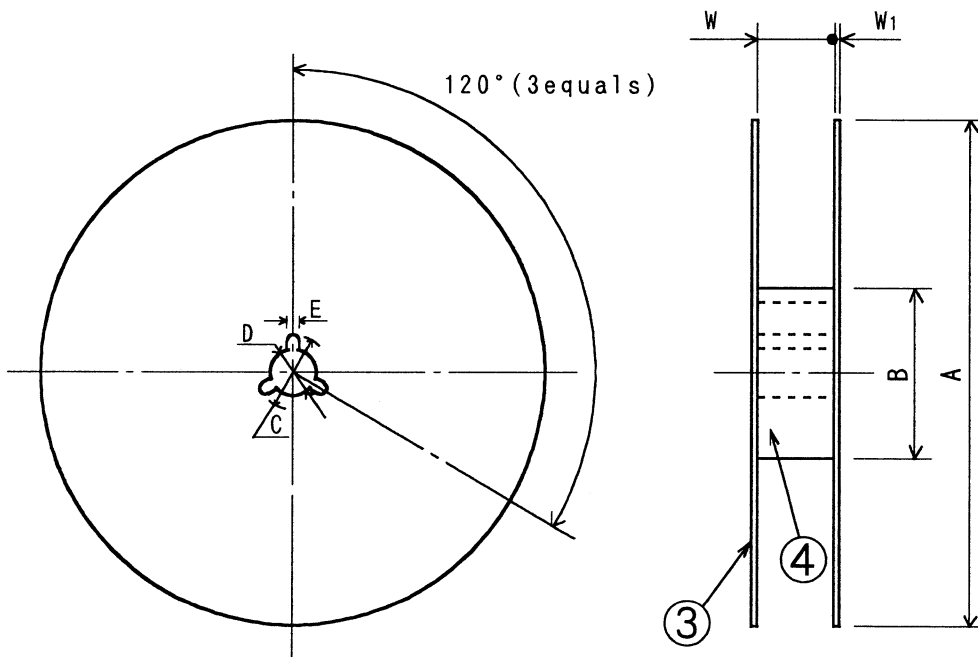
SET	ITEM	DESCRIPTION	MATERIAL	REMARKS
	①	Carrier Tape	PS	
	②	Top Tape	PET	
	③	Guide Frame	Chip Ball	
	④	Center Core	PSP	

Units:mm

	Size
A	5.4
B	7.9
D	$\phi 1.5$
E	1.75
F	7.5
P ₀	4.0
P ₁	8.0
P ₂	2.0
T	0.4
T ₁	1.7
W	16.0



(※ A sample of products allocation for 2packages 4poles)



Units:mm

	Size
A	**
B	$\phi 80$
C	$\phi 21$
D	$\phi 13$
E	2.0
W	17.5
W ₁	2.0

※ Meets EIA-481-B

(Peel Strength:10~130gf at 300±10mm/min. peel-off speed.)

In case of 2poles or 1package 4poles

In case of 2packages 4poles

※※ 1,000pcs/reel → A= $\phi 178$

※※※ At intervals of 2pcs

※※ 3,000pcs/reel → B= $\phi 250$

APPROVED	APPROVED	CHECKED	DRAWN	D.DATE	TITLE	CAM TAPING DRG.	
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	00 '99. 7. 6	DRAWING No.	TF00-GB031903	
				03 '07. 2. 8			

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