

**SAW Filter 140.0MHz**

**Model: TB0218A**

**Part No: MA06842**

**REV. NO.: 5**

**A. MAXIMUM RATING:**

1. Input Power Level: 10 dBm
2. Operating Temperature: -40°C to 85°C
3. Storage Temperature: -40°C to 85°C

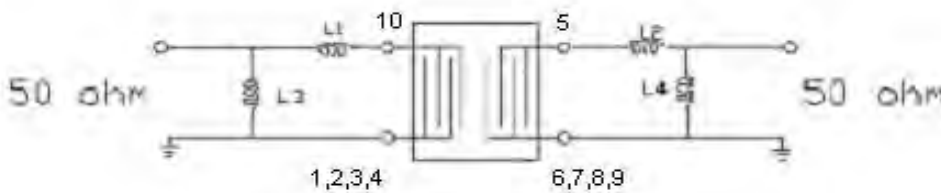
RoHS Compliant  
 Lead free  
 Lead-free soldering

**B. ELECTRICAL CHARACTERISTICS:**

1. Ambient Temperature: 25 °C

Item	Unit	Min.	Type.	Max.	Note
Center frequency, <b>F<sub>c</sub></b>	MHz	139.915	140	140.085	1
Minimum Insertion Loss, <b>IL</b>	dB	-	7	8	-
Amplitude Ripple in <b>F<sub>c</sub>±0.12MHz, AR</b>	MHz	-	0.6	1.5	-
Group delay ripple in <b>F<sub>c</sub>±0.15MHz</b>	ns	-	200	500	-
1dB Bandwidth	MHz	0.4	0.47	-	-
40dB Bandwidth	MHz	-	1.47	1.6	-
Relative attenuation (relative to min. IL)	-				
110 MHz ~ <b>F<sub>c</sub>-1MHz</b>	dB	35	41	-	-
<b>F<sub>c</sub>+1MHz</b> ~ 170MHz	dB	35	39	-	-

**C. MEASUREMENT CIRCUIT:**



**Input L1=39nH, L3=22nH  
 Output L2=33nH, L4=22nH**

**SAW Filter 140.0MHz**  
**Part No: MA06842**

**Model: TB0218A**  
**REV. NO.: 5**

**D. FREQUENCY CHARACTERISTICS:**

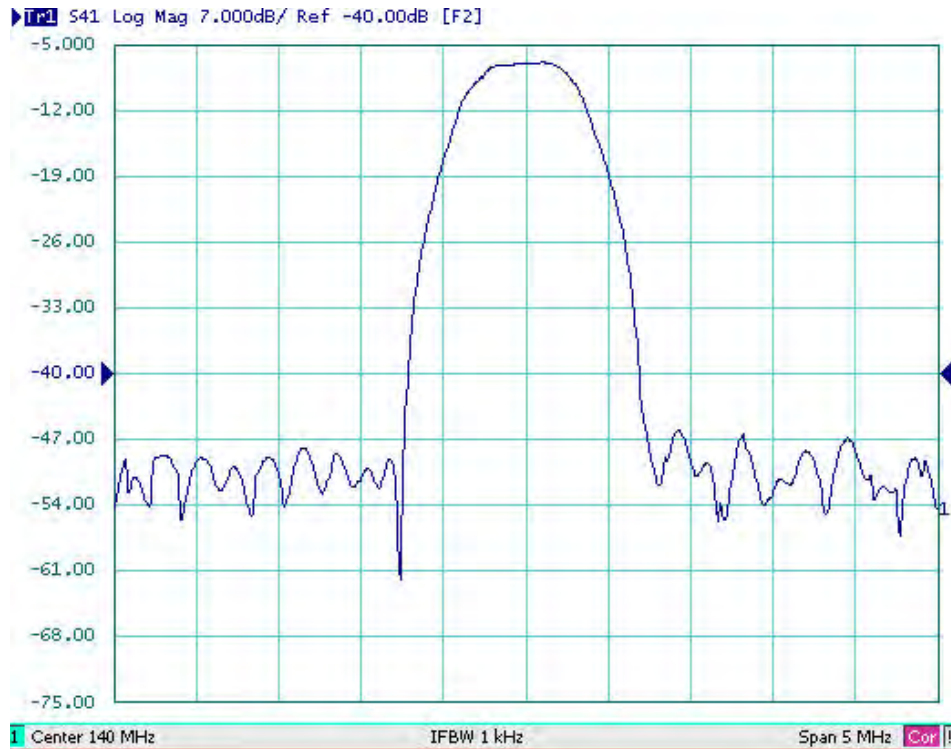


Fig-1 S21 Response Horizontal: 0.5MHz/Div  
Vertical: 7dB/Div

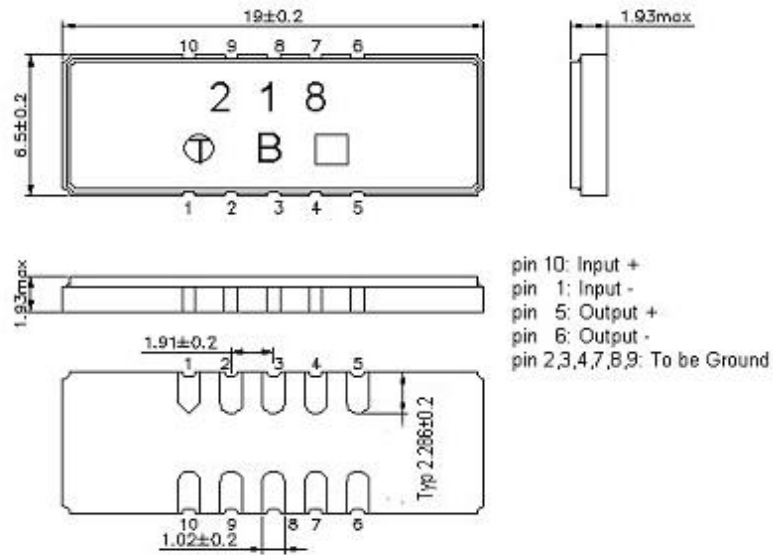


Fig-2 Horizontal: 200KHz/Div Vertical: 1dB/Div  
Vertical: 100ns/Div

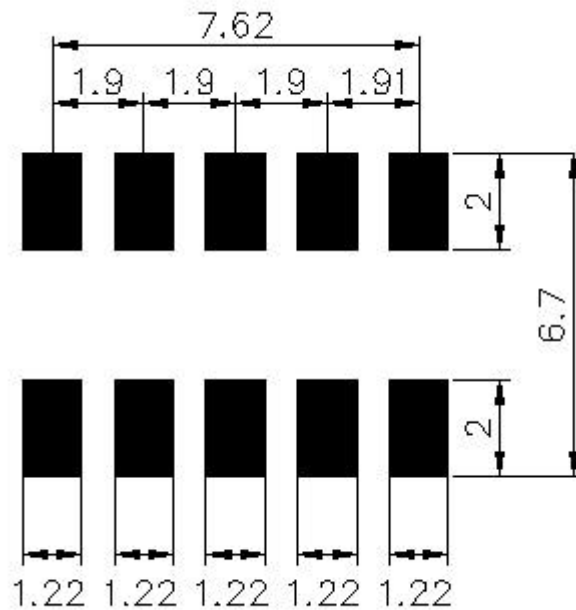
**SAW Filter 140.0MHz**  
**Part No: MA06842**

**Model: TB0218A**  
**REV. NO.: 5**

**E. OUTLINE DRAWING:**



**F. PCB FOOTPRINT:**



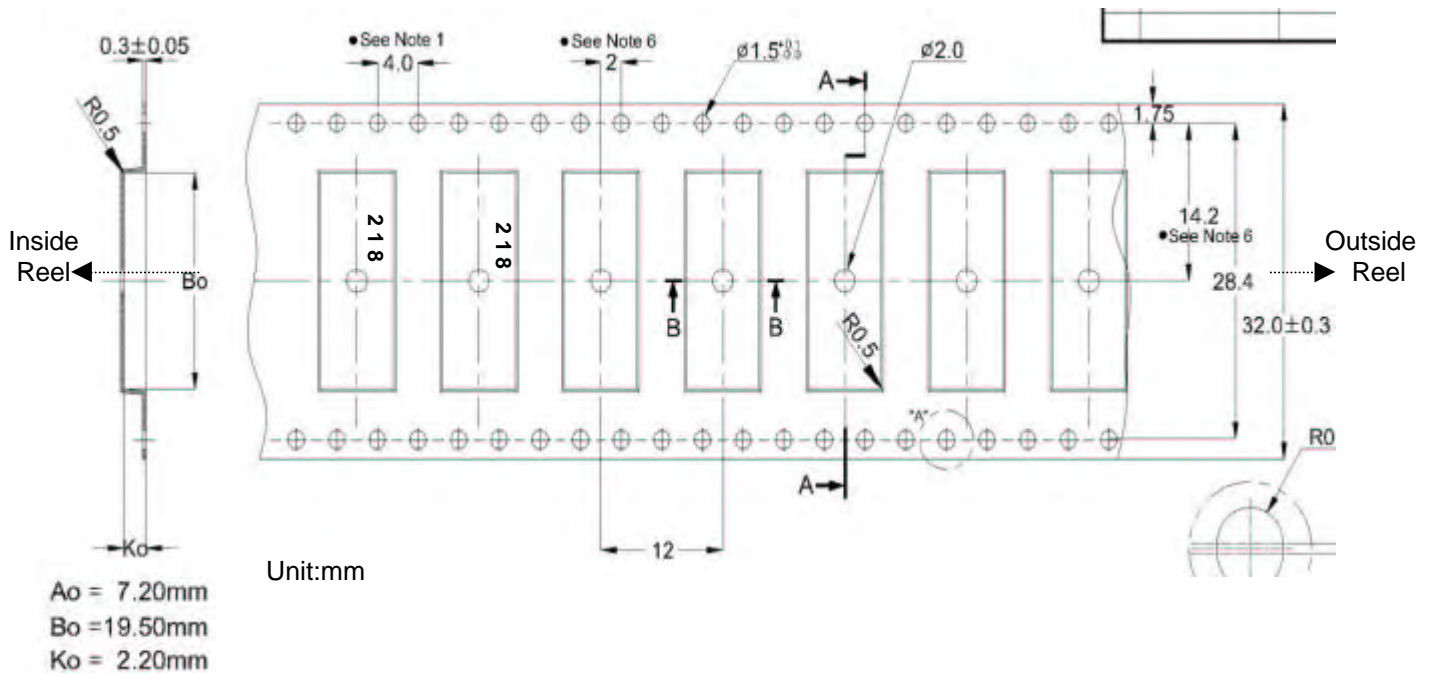
**SAW Filter 140.0MHz**

**Model: TB0218A**

**Part No: MA06842**

**REV. NO.: 5**

**G. TAPE DIMENSION:**



**SAW Filter 140.0MHz**

**Model: TB0218A**

**Part No: MA06842**

**REV. NO.: 5**

**H. MECHANICAL & ENVIRONMENT CHARACTERISTICS:**

Test Item	Condition of Test	Requirements
Shock ( Drop test )	random free drops 3 times from height of 1.0 meter onto hard wood.	The specimens shall meet the electrical specifications
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	
Solderability	immersed pad in soldering bath at 260±5°C for 5±0.5 seconds.	75% or more of the immersed surface shall be covered with solder
Temperature Characteristics	Specimens shall be measured within -40°C to +85°C temperature range	The specimens shall meet the electrical specifications
Dry heat ( Aging test )	Temperature : 125 ± 2 °C Duration : 250 hours	
Cold resistance	Temperature : -40 ± 3 °C Duration : 96 hours	
Thermal Shock	Heat cycle conditions -55 C    25 C    85 C (30 min) (5 min) (30 min) Cycle time : 5 times	

**SAW Filter 140.0MHz**  
**Part No: MA06842**

**Model: TB0218A**  
**REV. NO.: 5**

**I. REFLOW PROFILE:**

