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Golledge Electronics Ltd
Eaglewood Park, Ilminster
Somerset, TA19 9DQ, UK

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

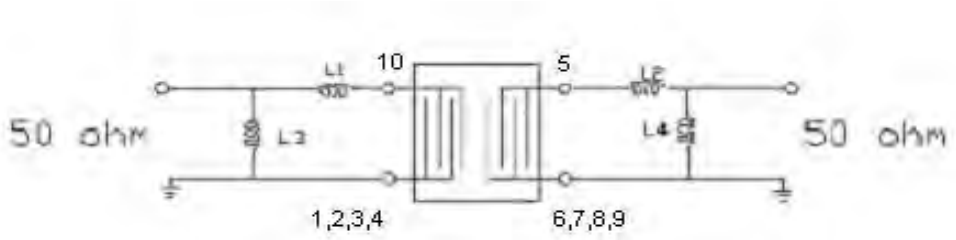
RoHS Compliant
Lead free
Lead-free soldering

B. ELECTRICAL CHARACTERISTICS:

1. Ambient Temperature: 25 °C

Item	Unit	Min.	Type.	Max.	Note
Center frequency, **Fc**	MHz	139.915	140	140.085	1
Minimum Insertion Loss, **IL**	dB	-	7	8	-
Amplitude Ripple in Fc±0.12MHz,**AR**	MHz	-	0.6	1.5	-
Group delay ripple in Fc±0.15MHz	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 ~ Fc-1MHz	dB	35	41	-	-
Fc+1MHz ~ 170MHz	dB	35	39	-	-

C. MEASUREMENT CIRCUIT:



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

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D. FREQUENCY CHARACTERISTICS:

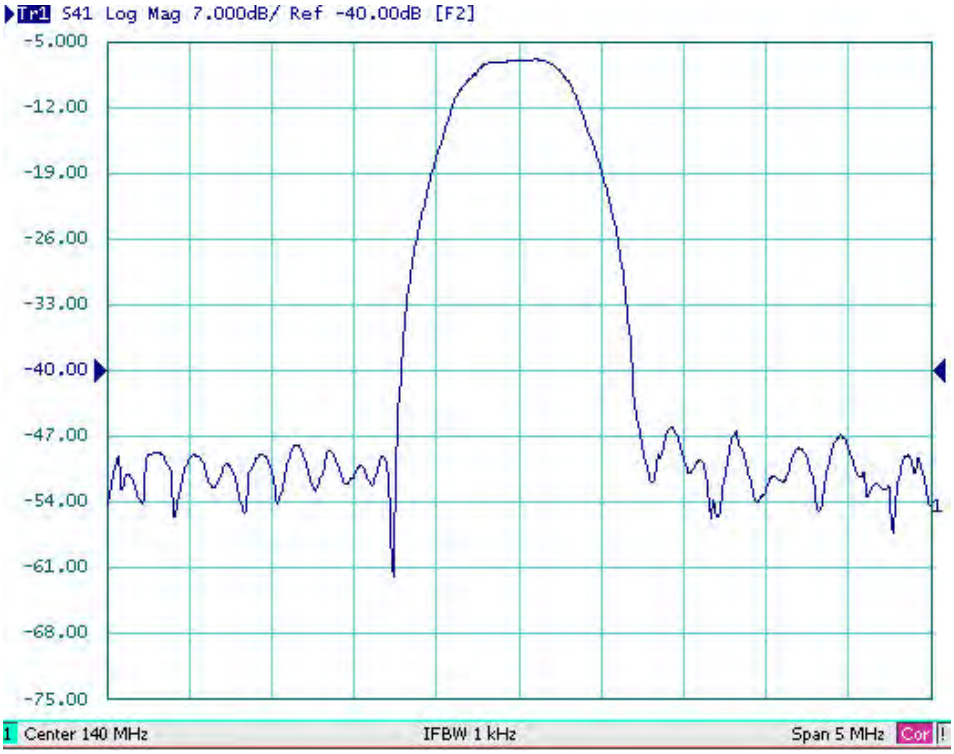


Fig-1 S21 Response Horizontal: 0.5MHz/Div
Vertical: 7dB/Div

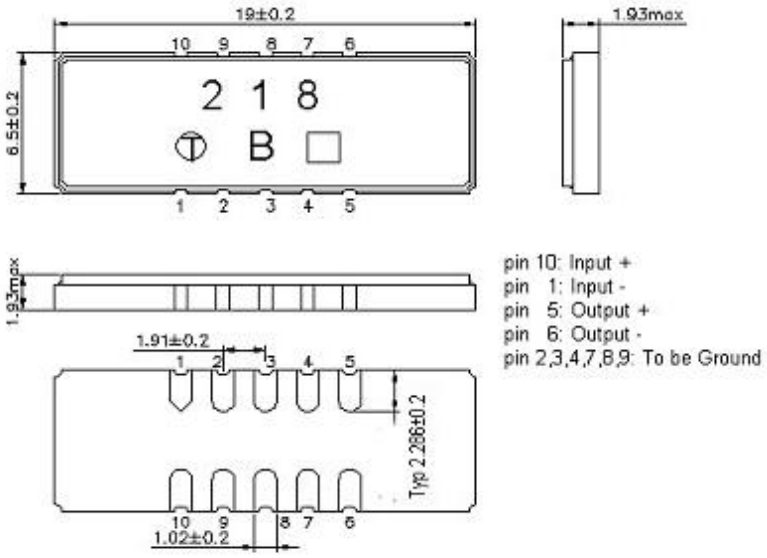


Fig-2 Horizontal: 200KHz/Div Vertical: 1dB/Div
Vertical: 100ns/Div

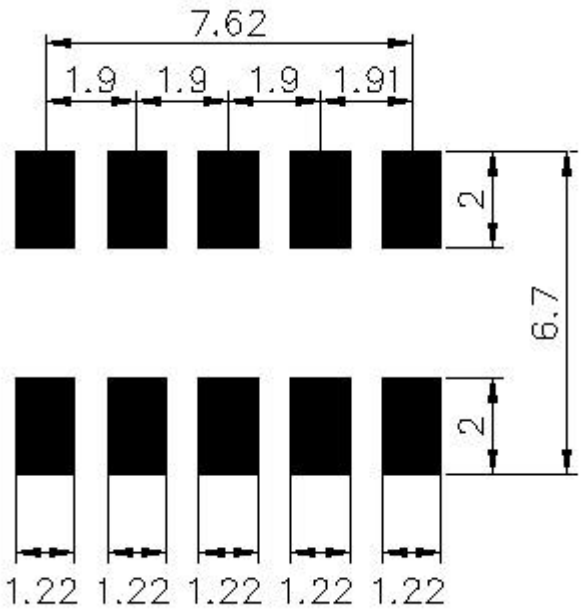
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E. OUTLINE DRAWING:



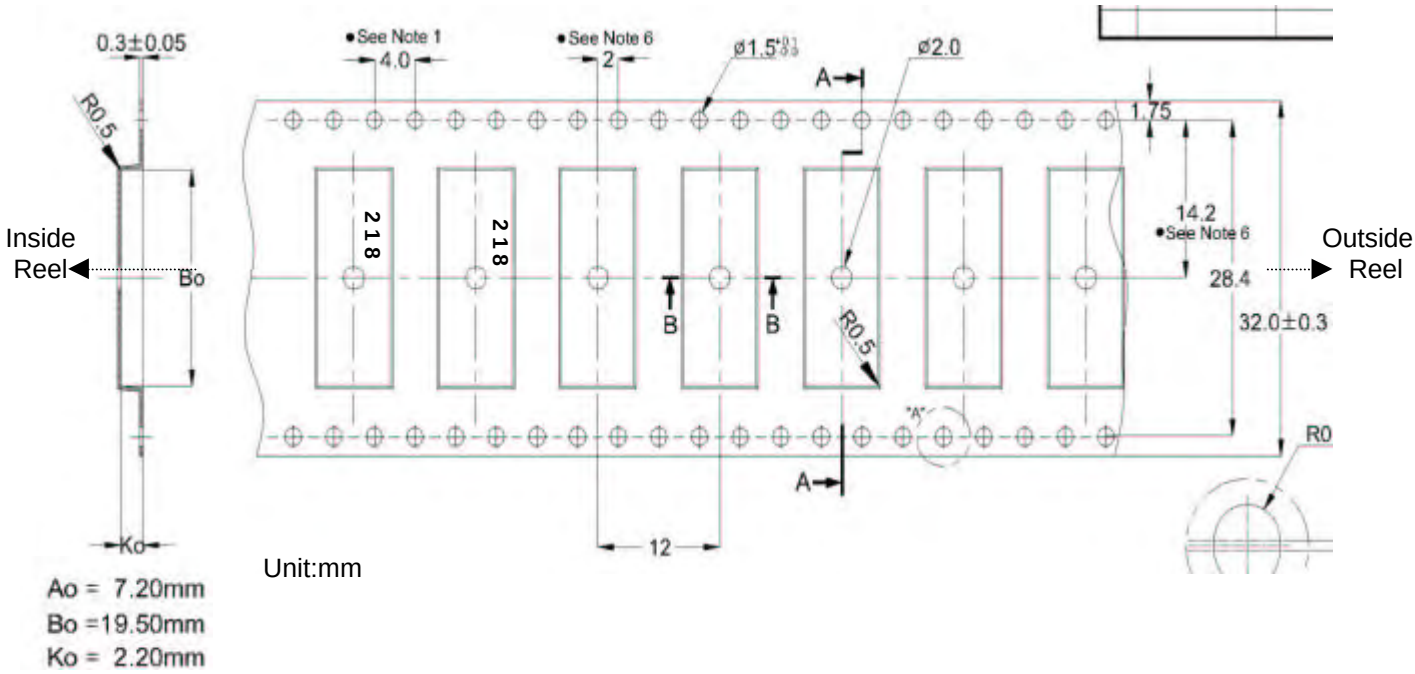
F. PCB FOOTPRINT:



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G. TAPE DIMENSION:



Unit:mm

Ao = 7.20mm
Bo =19.50mm
Ko = 2.20mm

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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	

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I. REFLOW PROFILE:

