PHONON CORPORATION

DATA SHEET

70 MHz Bandpass Filter
14.6 MHz Bandwidth
100613C FB70-17.5

Specifications

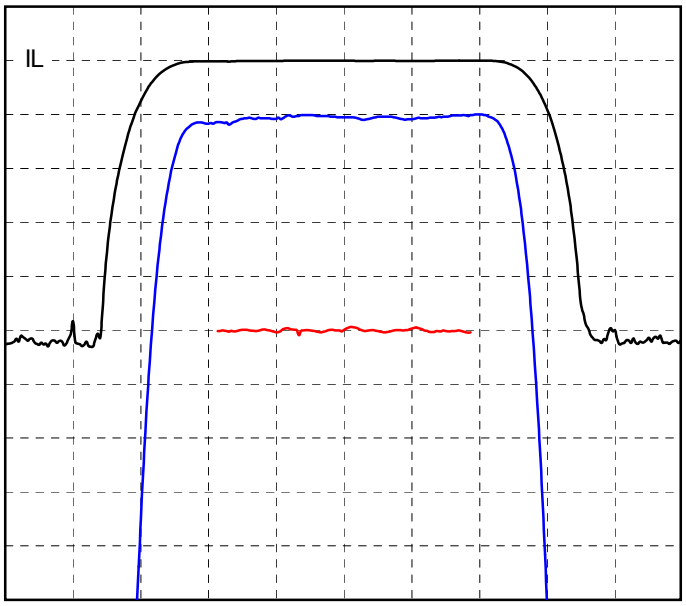
Parameter	Unit	Min	Typical	Max
Center Frequency (F0)	MHz		70	
Bandwidth (B)	MHz		14.6	
-3 dB Bandwidth (B3)	MHz	14.6	16.3	
-40 db Bandwidth (B40)	MHz		21	21.1
Delay (T0)	µsec	1.04	1.05	1.06
Insertion Loss (IL)	dB		32.2	33
Amplitude Ripple	dB p-p		0.2	0.5
Phase Ripple	deg p-p		1.3	2.5
Rejection	dB	48	51	
Spurious for |t-T0|>.9T0	dB		-55	-54
Substrate Material	128YX-LN			

Notes:

1. Center Frequency (F0) and Bandwidth (B) are defined, not measured.
2. Insertion Loss is the minimum loss for |f-F0|<.5B
3. Ripple spec applies to the |f-F0|<.4B, and is doubled for .4B<|f-F0|<.5B
4. Rejection spec applies to (B40 Spec - B/2)<|f-F0|<F0/2
5. Specifications are at 22C only. Unit will operate undamaged from -54C to 125C with shifts dF0= -x*F0, dT0=x*T0, where x=75E-6*(temperature-22C)

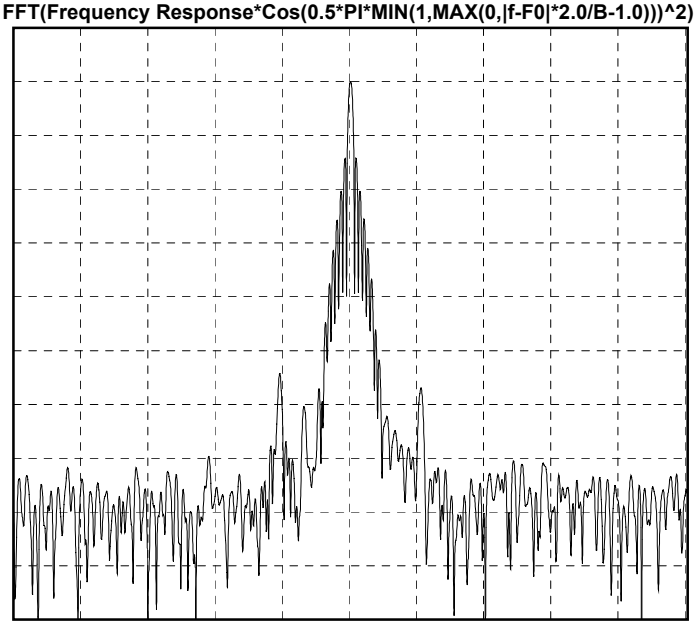
Typical Performance

Frequency Response
(Best Fit Linear Phase Removed)



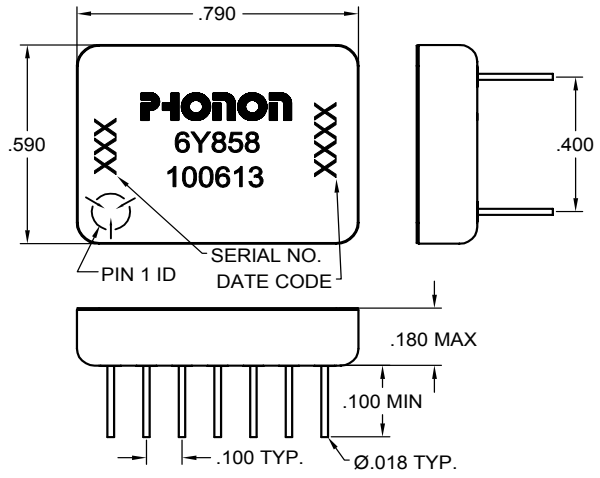
10 dB/div, 1 dB/div, 10 deg/div, 3 MHz/div

Impulse Response
FFT(Frequency Response*Cos(0.5*PI*MIN(1,MAX(0,|f-F0|*2.0/B-1.0)))^2)

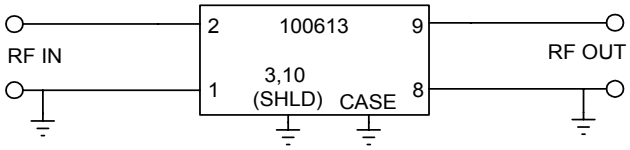


10 dB/div, 1 us/div

Package Outline



Matching



Matched S-parameters available at www.phonon.com