

101147C

FB99.75-.425 0.425 MHz Bandwidth 99.75 MHz Bandpass Filter

Specifications

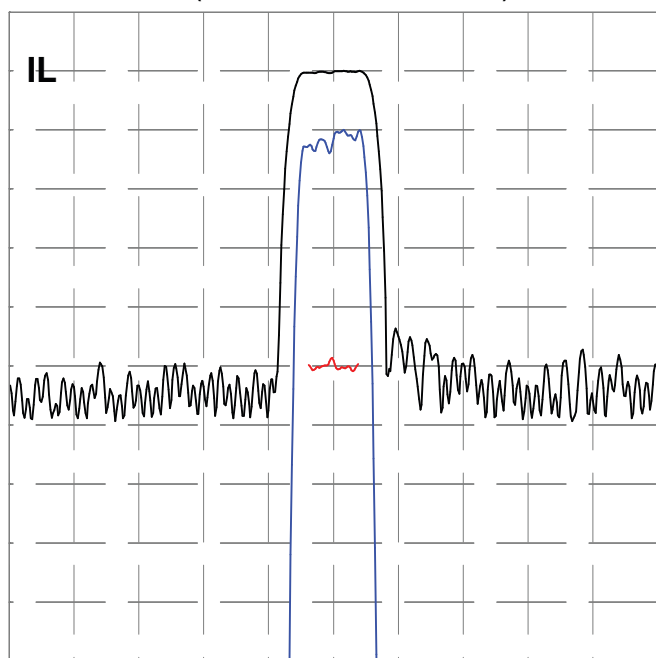
| Parameter | Symbol | Min | Typical | Max | Unit |
|----------------------------------|----------|--------|---------|------|--------------------|
| Center Frequency | F_0 | | 99.75 | | MHz |
| Bandwidth | B | | 0.425 | | MHz |
| -3dB Bandwidth | B_3 | 0.5 | 0.6 | | MHz |
| -40dB Bandwidth | B_{40} | | 0.8 | 0.9 | MHz |
| Delay | T_0 | 7.88 | 7.908 | 7.96 | μ sec |
| Insertion Loss | IL | | 21 | 25.5 | dB |
| Amplitude Ripple | | | 0.4 | 1 | dB _{P-P} |
| Phase Ripple | | | 2.4 | 4 | deg _{P-P} |
| Rejection | | 44 | 46 | | dB |
| Spurious for $ t - T_0 > .9T_0$ | | | -43 | -40 | dB |
| Substrate Material | | 38YX Q | | | |

Notes

- Center Frequency (F_0) and Bandwidth (B) are defined, not measured.
- Insertion Loss is the minimum loss for $|f - F_0| < .5B$
- Ripple spec applies to the $|f - F_0| < .4B$, and is doubled for $.4B < |f - F_0| < .5B$
- Rejection spec applies to $(B_{40} \text{ Spec} - B/2) < |f - F_0| < F_0/2$
- Specifications are at 22 °C only. Unit will operate undamaged from -54 °C to 125 °C with shifts $dF_0 = -x * F_0$, $dT_0 = x * T_0$, where $x = 3E-8 * (\text{temperature} - 22 \text{ °C})^2$

Typical Performance

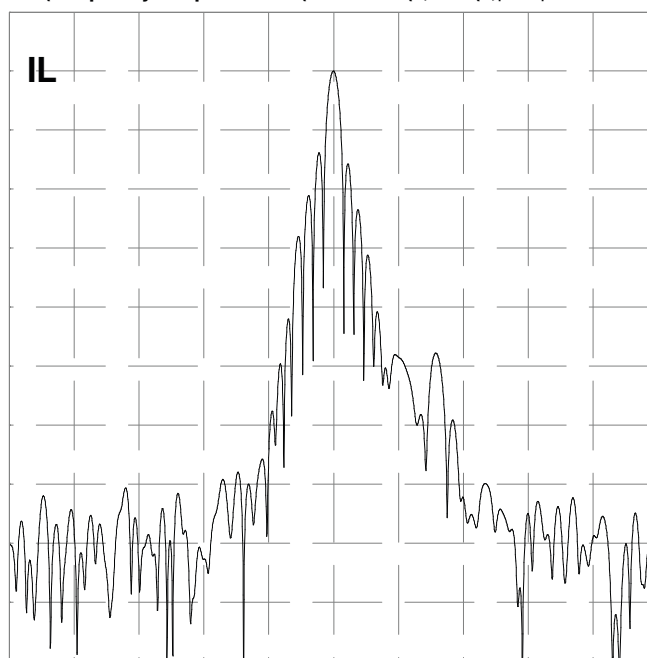
Frequency Response
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 0.500 MHz/div

Impulse Response

FFT(Frequency Response * Cos(0.5 * PI * MIN(1, MAX(0, |f - F0| * 2.0 / (0.6 - 1.0))))^2

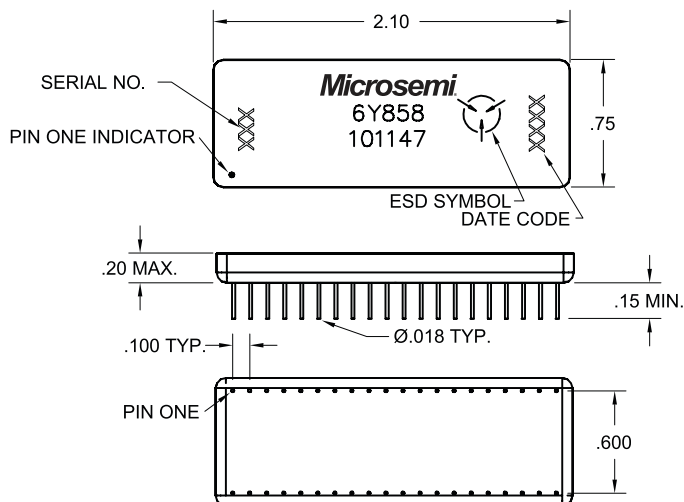


10 dB/div, 10.000 us/div

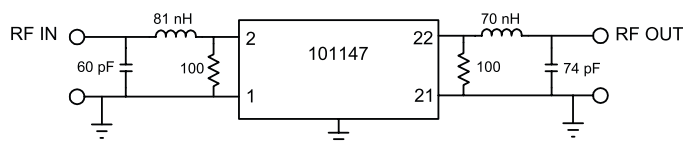
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Package Outline



Matching



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