101512C

FB357.5-1.25 357.5 MHz Bandpass Filter 1.25 MHz Bandwidth

Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	F_0		357.5		MHz
Bandwidth	B		1.25		MHz
–3 dB Bandwidth	B_3	1.2	1.2		MHz
–40 dB Bandwidth	B_{40}		2	2.3	MHz
Delay	T_0	2.6	2.62	2.64	µsec
Insertion Loss	IL		21.3	25	dB
Amplitude Ripple			1.4	2.5	dB_{P-P}
Phase Ripple			2.3	4	deg_{P-P}
Rejection		42	45		dB
Spurious for $\|t - T_0\| > .9T_0$			–37	–36	dB
Substrate Material	36YX-Q				

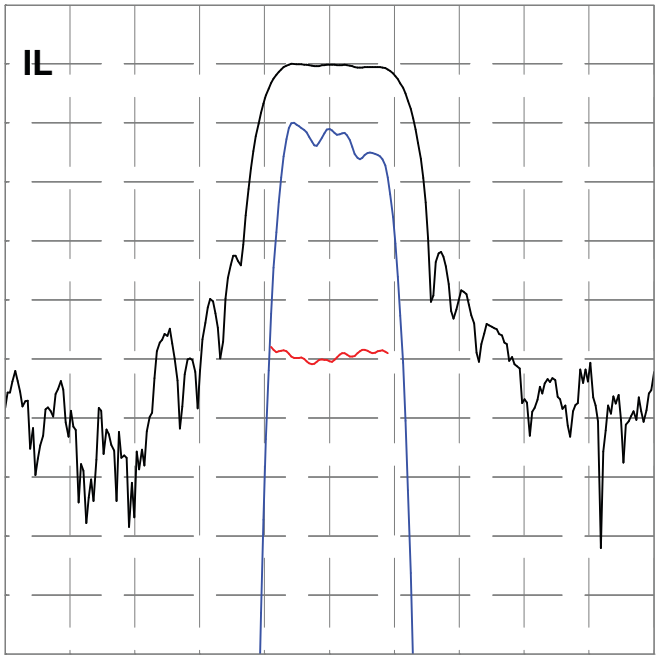
Notes

1. Center Frequency (F_0) and Bandwidth (B) are defined, not measured.
2. Insertion Loss is the minimum loss for $|f - F_0| < .5B$
3. Ripple spec applies to the $|f - F_0| < .4B$, and is doubled for $.4B < |f - F_0| < .5B$
4. Rejection spec applies to $(B_{40}\ \text{Spec} - B/2) < |f - F_0| < F_0/2$
5. 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 $x = 3E\text{-}8 * (\text{temperature} - 22\,°C)^2$

Typical Performance

Frequency Response

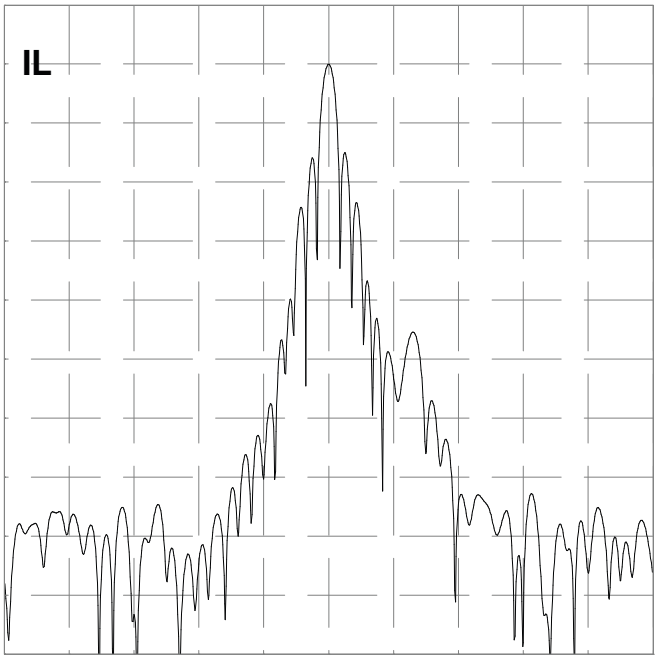
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 0.625 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, 4.096 us/div

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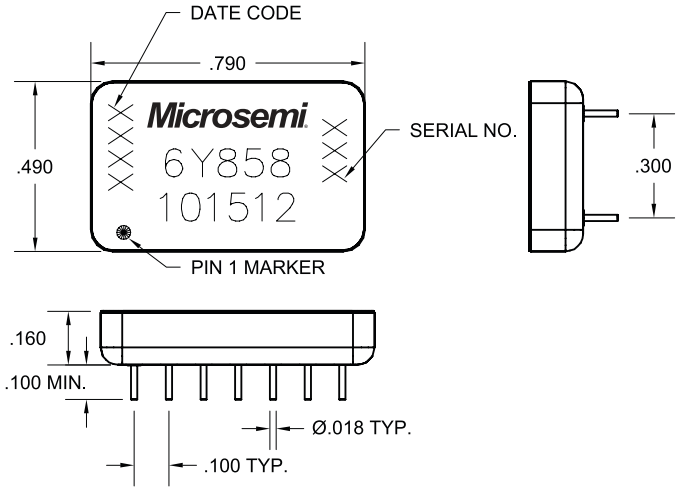
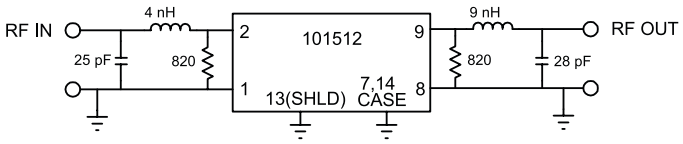
Package Outline



Matching



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