

101142C

FB82.5-5 5 MHz Bandwidth 82.5 MHz Bandpass Filter

Specifications

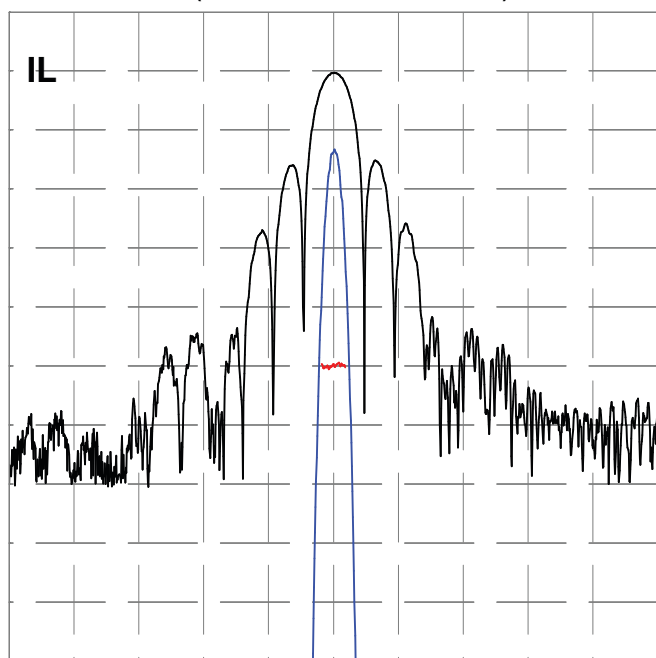
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	F_0		82.5		MHz
Bandwidth	B		5		MHz
-3dB Bandwidth	B_3	4.5	5		MHz
-40dB Bandwidth	B_{40}		48	49	MHz
Delay	T_0	0.93	0.976	1.025	μ sec
Insertion Loss	IL		25.6	28	dB
Amplitude Ripple			2.1	3	dB _{P-P}
Phase Ripple			1.1	1.5	deg _{P-P}
Rejection		40	42		dB
Spurious for $ t - T_0 > .9T_0$			-39	-35	dB
Substrate Material		X112Y-LT			

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 $x = 18E-6 * (\text{temperature} - 22^\circ\text{C})$

Typical Performance

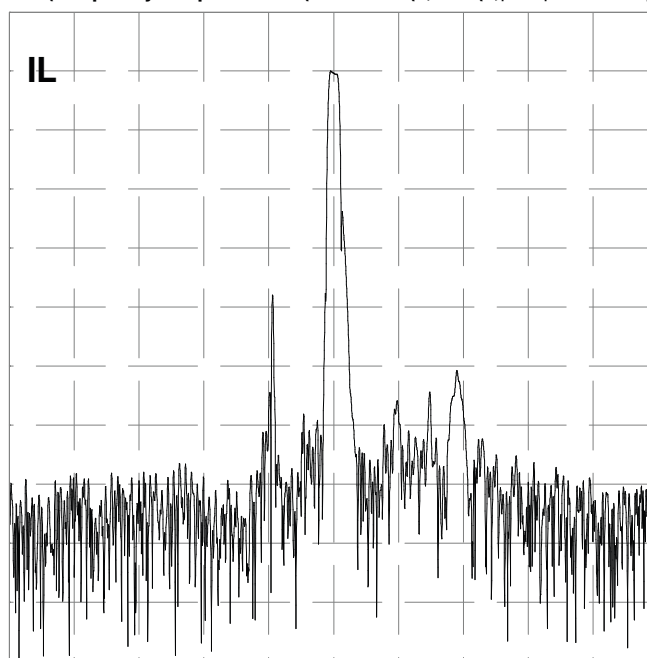
Frequency Response
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 12.000 MHz/div

Impulse Response

FFT(Frequency Response * Cos(0.5*PI*MIN(1,MAX(0,|f-F0|*2.0/32-1.0)))^2)

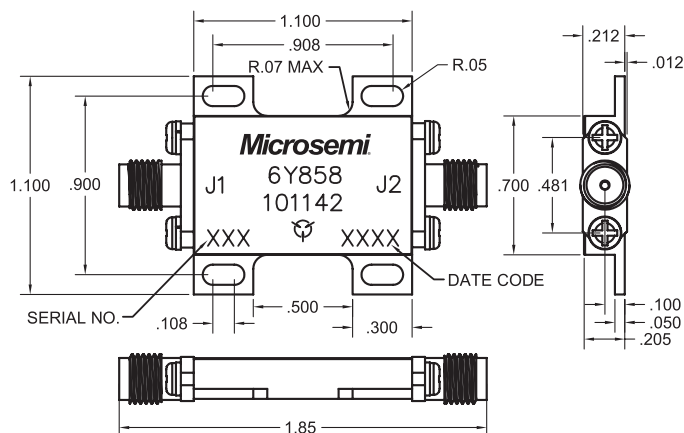


10 dB/div, 1.000 us/div

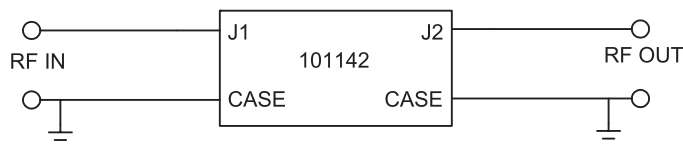
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Package Outline



Matching



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