

# 101235C

FB102.27-12.5 102.27 MHz Bandpass Filter 12.5 MHz Bandwidth

## Specifications

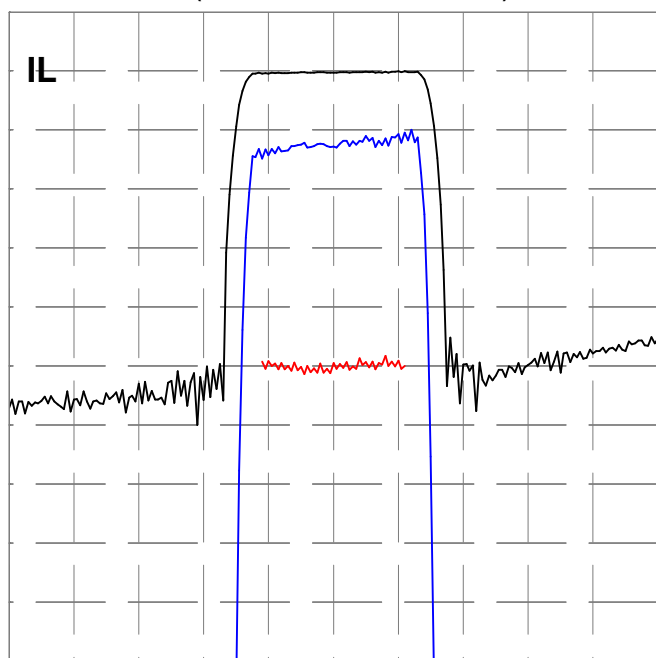
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	$F_0$		102.27		MHz
Bandwidth	B		12.5		MHz
-3dB Bandwidth	$B_3$	14.1	14.2		MHz
-40dB Bandwidth	$B_{40}$		16.9	17	MHz
Delay	$T_0$	1.02	1.023	1.03	$\mu\text{sec}$
Insertion Loss	IL		20.1	21	dB
Amplitude Ripple			0.3	0.5	dB <sub>P-P</sub>
Phase Ripple			3	5	deg <sub>P-P</sub>
Rejection		40	44		dB
Spurious for $ t - T_0  > .9T_0$			-42	-40	dB
Substrate Material		128YX-LN			

### 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  $x = 75E-6 * (\text{temperature} - 22^\circ\text{C})$

## Typical Performance

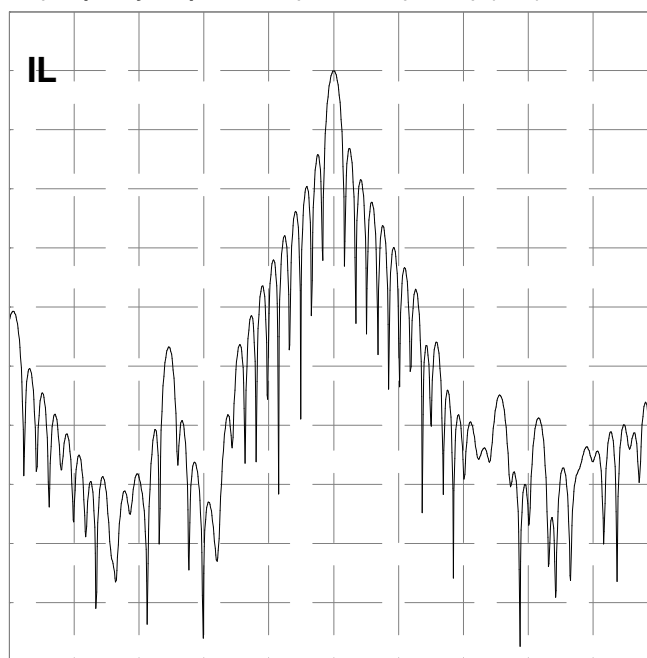
**Frequency Response**  
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 5.000 MHz/div

**Impulse Response**

FFT(Frequency Response \* Cos(0.5 \* PI \* MIN(1, MAX(0, |f - F0| \* 2.0 / 12.5 - 1.0)))^2)

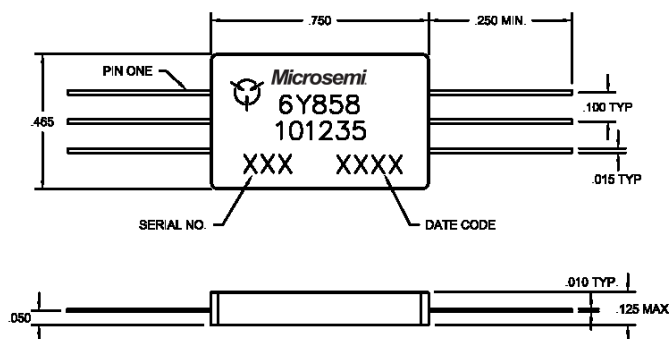


10 dB/div, 0.400 us/div

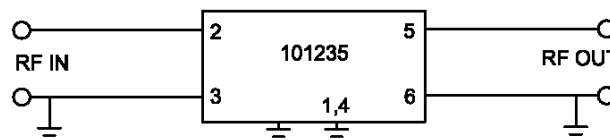
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## Package Outline



## Matching



**Microsemi Corporate Headquarters**  
 One Enterprise, Aliso Viejo, CA 92656 USA  
 Within the USA: +1 (800) 713-4113  
 Outside the USA: +1 (949) 380-6100  
 Fax: +1 (949) 215-4996  
 Email: [sales.support@microsemi.com](mailto:sales.support@microsemi.com)  
[www.microsemi.com](http://www.microsemi.com)

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