

# 101238C

LR338-60-12 338 MHz Delay Line 60 MHz Bandwidth

## Specifications

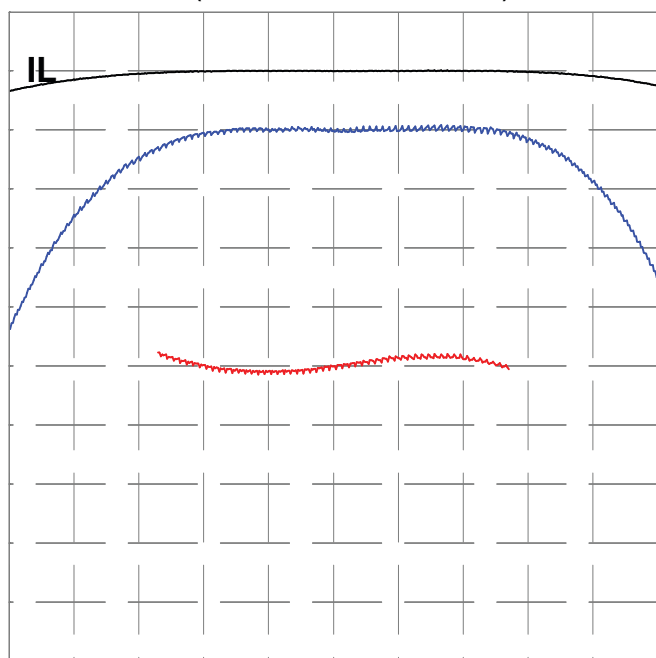
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	$F_0$		338		MHz
Bandwidth	B		60		MHz
Delay	$T_0$	11.95	11.997	12	$\mu\text{sec}$
Insertion Loss	IL		22.6	23.5	dB
Amplitude Ripple			0.3	0.5	$\text{dB}_{\text{P-P}}$
Phase Ripple			3.5	4	$\text{deg}_{\text{P-P}}$
Spurious for $ t - T_0  > .9T_0$			-50	-48	dB
Substrate Material		YZ-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  $.4B < |f - F_0| < .5B$
- 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  $x = 94E-6 * (\text{temperature} - 22 \text{ °C})$

## Typical Performance

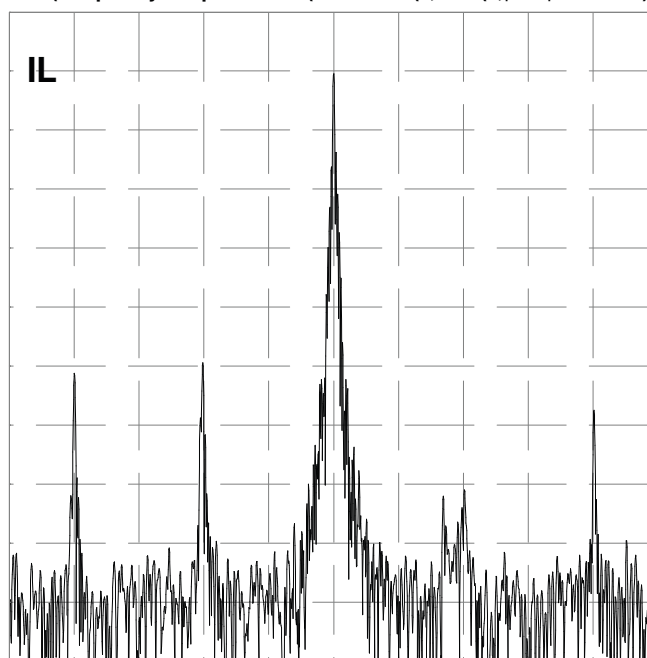
**Frequency Response**  
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 10.000 MHz/div

**Impulse Response**

FFT(Frequency Response \* Cos(0.5 \* PI \* MIN(1, MAX(0, |f - F0| \* 3.0 / B - 1.5))))^2

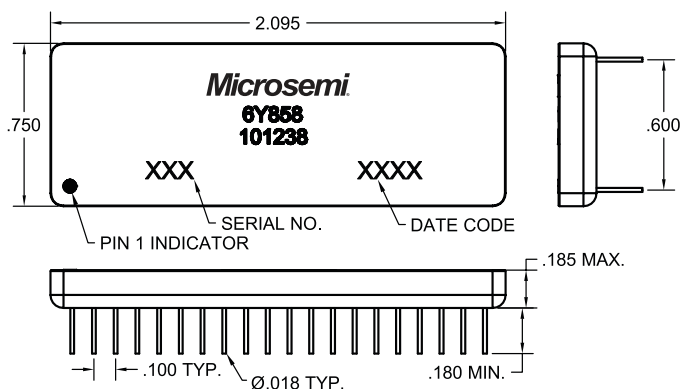


10 dB/div, 0.500 us/div

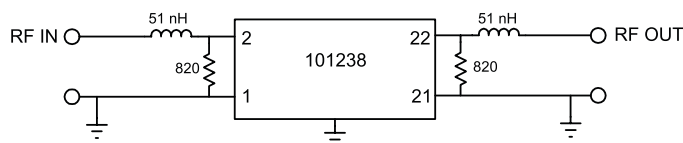
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## Package Outline



## Matching



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