

# 101229C

## ID60-6-10U+ 60 MHz Dispersive Delay Line 6 MHz Bandwidth

### Specifications

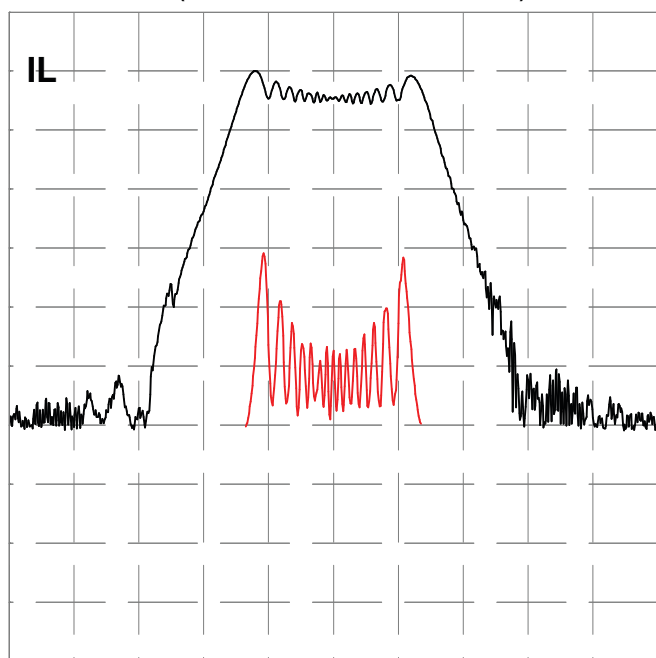
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	$F_0$		60		MHz
Bandwidth	B		6		MHz
Dispersion	T		10		$\mu\text{sec}$
Delay	$T_0$	6.16	6.192	6.24	$\mu\text{sec}$
Insertion Loss	IL		34	35	dB
Slope	$S_0$	1.67	1.68	1.69	$\mu\text{s}/\text{MHz}$
Pulse Width at -3 dB			0.138	0.139	$\mu\text{sec}$
Sidelobes for $ t - T_0  < T$			-10.8	-10.5	dB
Time Spurious for $ t - T_0  > T$			-61	-56	dB
Substrate Material		40YX-Q			

### Notes

- Center Frequency ( $F_0$ ) and Bandwidth (B) are defined, not measured. Dispersion (T) is defined as  $|B * S_0|$ .
- Insertion Loss is the minimum loss for  $|f - F_0| < .5B$
- Delay and Slope determined by best fit quadratic pulse in  $|f - F_0| < .5B$ .
- Specifications are at 22 °C only. Unit will operate undamaged from -54 °C to 125 °C with shifts  $dF_0 = -x * F_0$ ,  $dT_0 = x * (T_0 + S_0 * F_0)$ ,  $dS_0 = x * 2 * S_0$ , where  $x = 3E-8 * (\text{temperature} - 22 \text{ } ^\circ\text{C})^2$

### Typical Performance

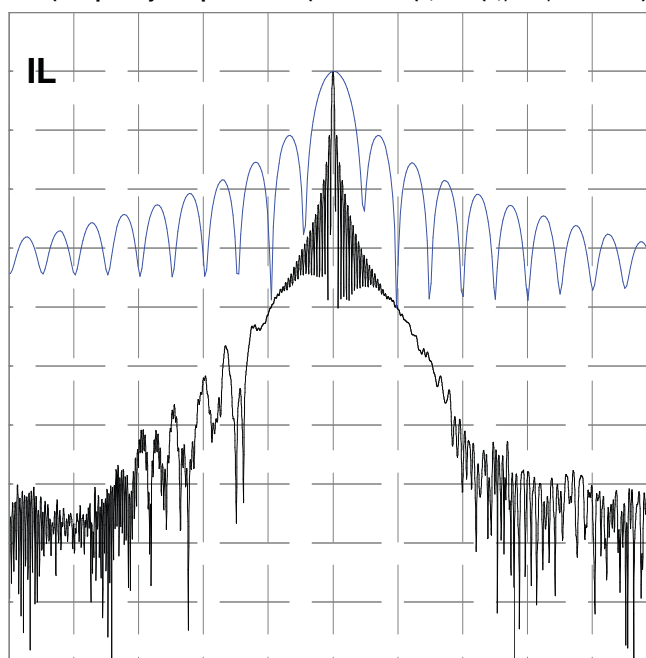
**Frequency Response**  
(Best Fit Quadratic Phase Removed)



10 dB/div, 10 deg/div, 2.000 MHz/div

**Compressed Pulse Response**

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

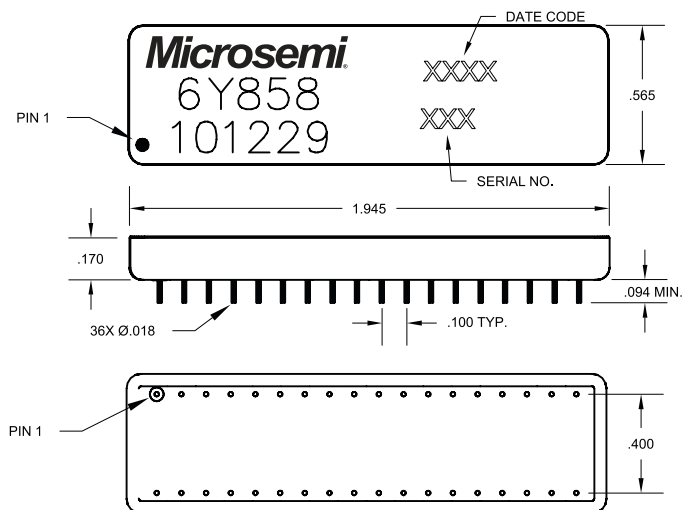


10 dB/div, 4.000  $\mu\text{s}/\text{div}$ , 0.333  $\mu\text{s}/\text{div}$

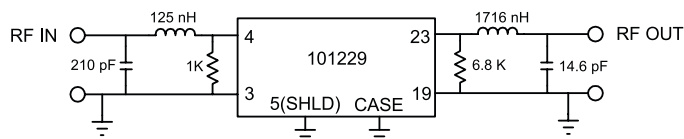
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## Package Outline



## 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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