

101584C

ID60-12.5-9.7U- 60 MHz Dispersive Delay Line 12.5 MHz Bandwidth

Specifications

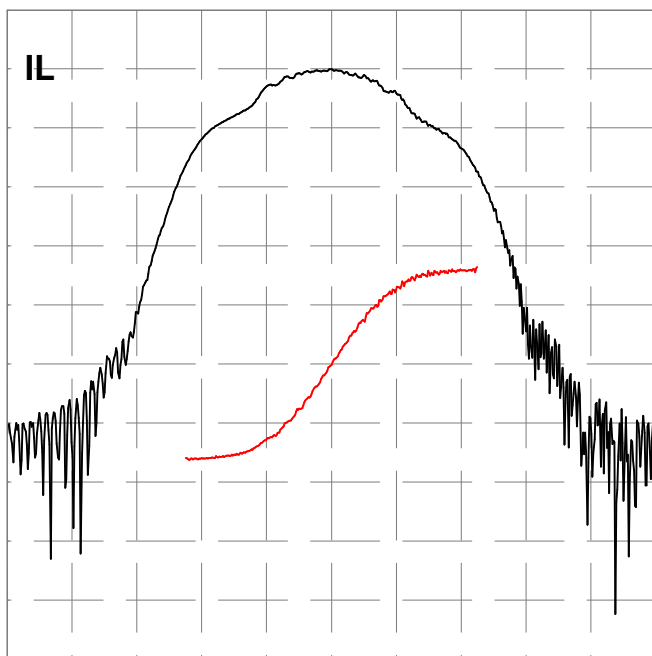
Parameter	Symbol	Min	Typical	Max	Unit
Center Frequency	F_0		60		MHz
Bandwidth	B		12.5		MHz
Dispersion	T		9.7		μsec
Delay	T_0	8.194	8.21	8.229	μsec
Insertion Loss	IL		37.1	38.5	dB
Slope	S_0	0	0.776	0	$\mu\text{s}/\text{MHz}$
Pulse Width at -3dB			0.1375	0.1385	μsec
Sidelobes for $ t - T_0 < T$			-40	-38.5	dB
Time Spurious for $ t - T_0 > T$			-57	-54	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 $x = *(temperature - 22^\circ\text{C})^2$

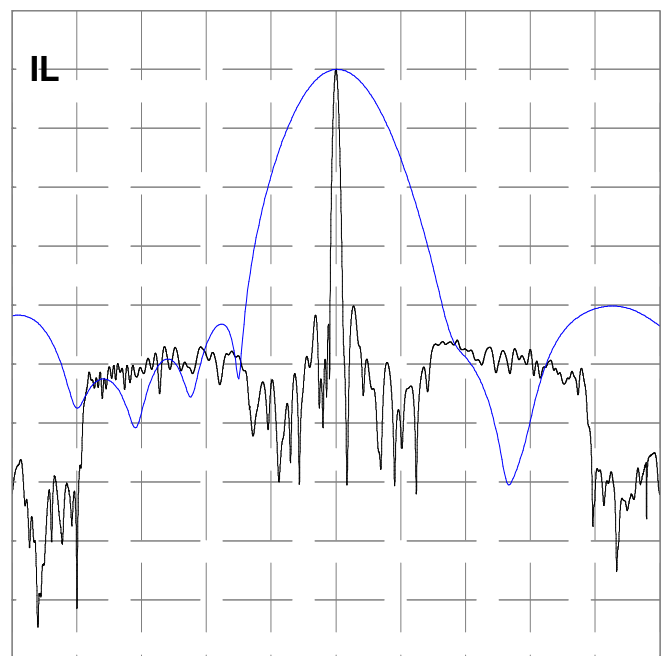
Typical Performance

Frequency Response
(Nonlinear FM)



10 dB/div, 3 $\mu\text{s}/\text{div}$, 2.496 MHz/div

Compressed Pulse Response
Response to Ideal Time Gated, Limited NLFM Input

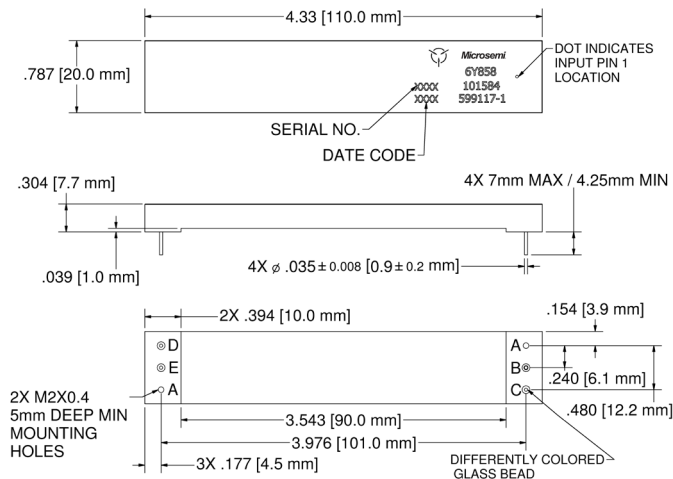


10 dB/div, 2.500 $\mu\text{s}/\text{div}$, 0.160 $\mu\text{s}/\text{div}$

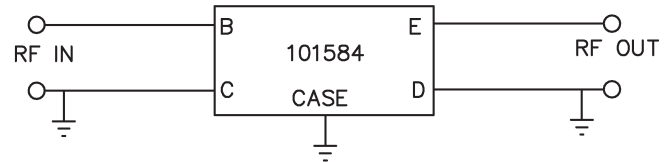
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Package Outline



Matching



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