

**Specifications**

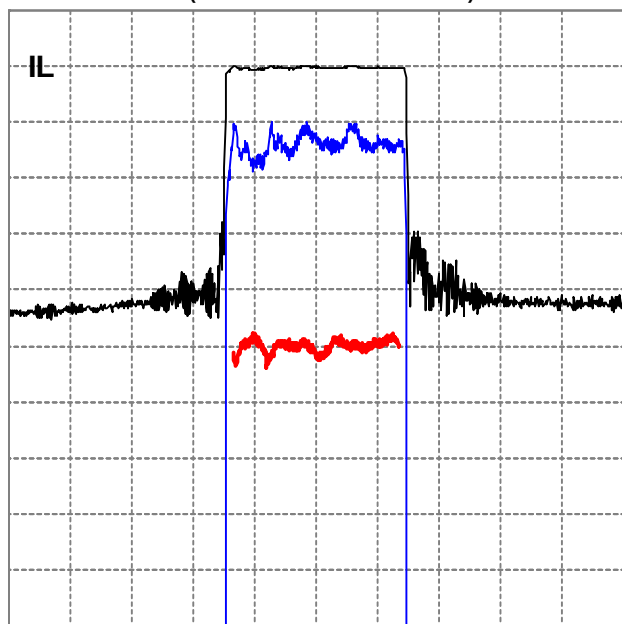
| Parameter                    | Unit    | Min   | Typical | Max   |
|------------------------------|---------|-------|---------|-------|
| Center Frequency (F0)        | MHz     |       | 40      |       |
| Bandwidth (B)                | MHz     |       | 6       |       |
| -3 dB Bandwidth (B3)         | MHz     | 5.7   | 5.8     |       |
| -40 dB Bandwidth (B40)       | MHz     |       | 6.2     | 6.7   |
| Delay (T0)                   | μsec    | 13.05 | 13.083  | 13.15 |
| Insertion Loss (IL)          | dB      |       | 46.9    | 48    |
| Amplitude Ripple             | dB p-p  |       | 1       | 1.6   |
| Phase Ripple                 | deg p-p |       | 6.1     | 10    |
| Rejection                    | dB      | 28    | 30      |       |
| Spurious for $ t-T0  > .9T0$ | dB      |       | -34     | -31   |
| Substrate Material           | 40YX-Q  |       |         |       |

**Notes:**

- Center Frequency (F0) and Bandwidth (B) are defined, not measured.
- Insertion Loss is the minimum loss for  $|f-F0| < .5B$
- Ripple spec applies to the  $|f-F0| < .4B$ , and is doubled for  $.4B < |f-F0| < .5B$
- Rejection spec applies to  $(B40 \text{ Spec} - B/2) < |f-F0| < F0/2$
- Specifications are at 22C only. Unit will operate undamaged from -54C to 125C with shifts  $dF0 = -x \cdot F0$ ,  $dT0 = x \cdot T0$ , where  $x = 3E-8 \cdot (\text{temperature} - 22C)^2$

**Typical Performance**

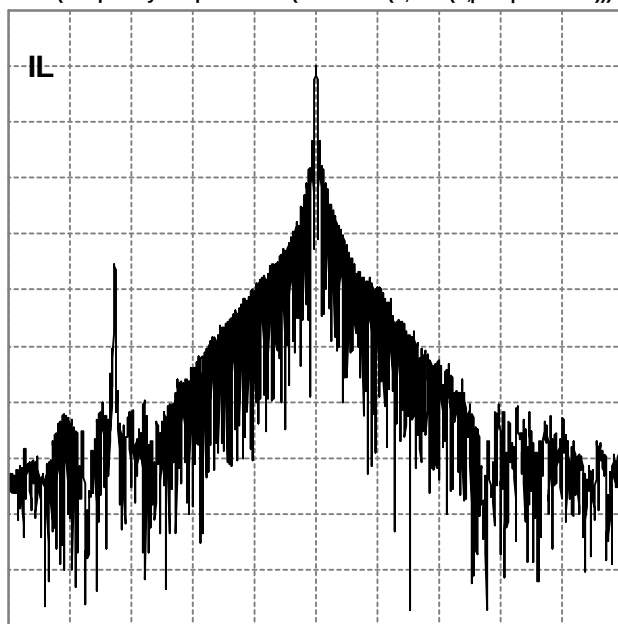
**Frequency Response**  
(Best Fit Linear Phase Removed)



10 dB/div, 1 dB/div, 10 deg/div, 2.000 MHz/div

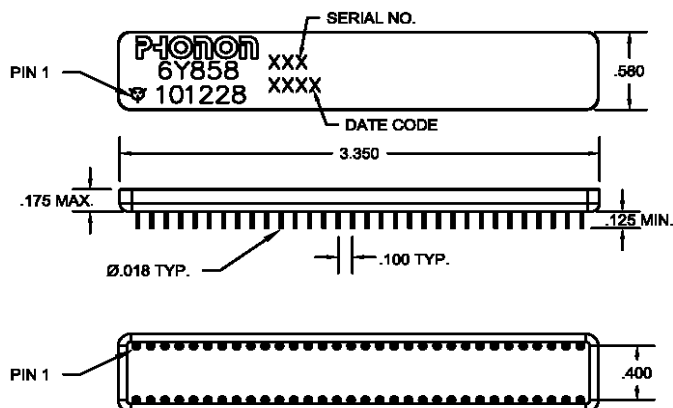
**Impulse Response**

FFT(Frequency Response \* Cos(0.5 \* PI \* MIN(1, MAX(0, |f-F0| \* 2.0 / (6-1.0))) ^ 2))

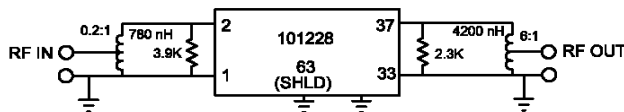


10 dB/div, 4.000 us/div

**Package Outline**



**Matching**



Matched S-parameters available at [www.phonon.com](http://www.phonon.com)