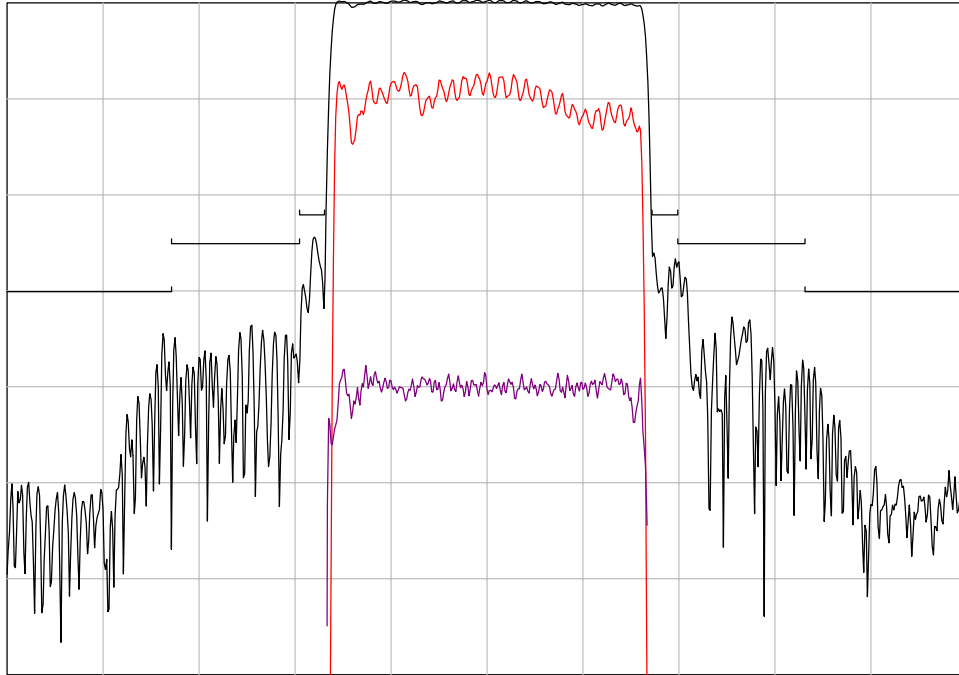


DESCRIPTION

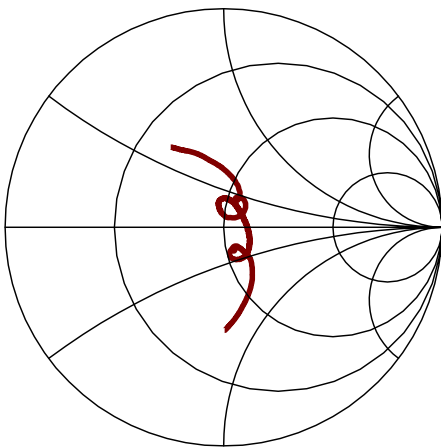
- 140 MHz SAW bandpass filter with 9.37 MHz bandwidth.
- 27.2 x 12.7 mm DIP package.
- RoHS compliant.

TYPICAL PERFORMANCE

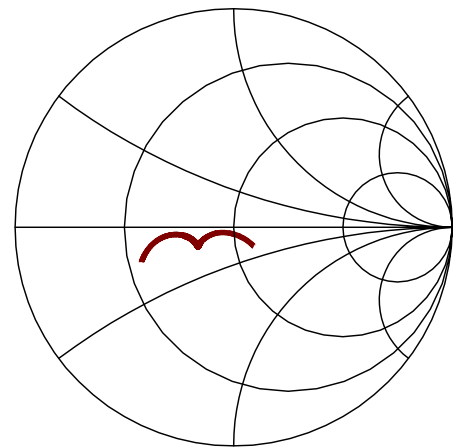


Horizontal: Frequency : 3 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Group Delay : 200 ns/div

S11



S22



SPECIFICATION

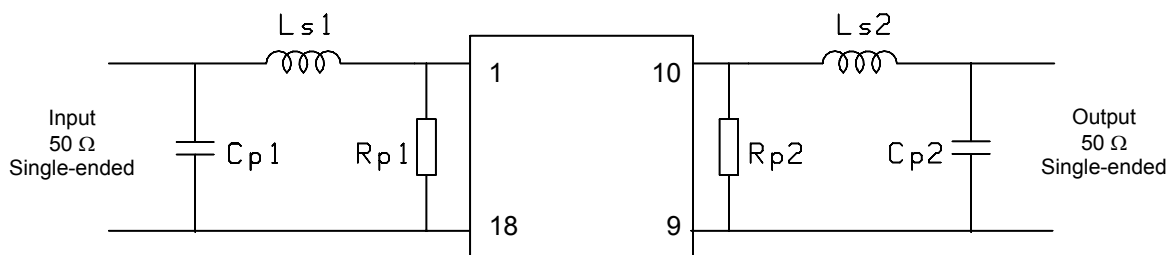
| Parameter | Min | Typ | Max | Units |
|--|---------|--------|---------|--------------------|
| Center Frequency (Fc) | - | 140 | - | MHz |
| Insertion Loss at Fc | - | 25.3 | 30 | dB |
| Amplitude Ripple ¹ | - | 0.75 | 1.5 | dB p-p |
| Lower 1 dB Frequency ² | - | 135.28 | 135.315 | MHz |
| Upper 1 dB Frequency ² | 144.685 | 144.86 | - | MHz |
| 1 dB bandwidth ² | 9.37 | 9.63 | - | MHz |
| 25 dB Bandwidth ² | - | 10.60 | - | MHz |
| Absolute Delay | - | 3.51 | 5.0 | us |
| Input and Output Return Loss ³ | 8 | 12 | - | dB |
| Stopband Rejection (30 to 125 MHz) ² | 40 | 45 | - | dB |
| Stopband Rejection (125 to 130 MHz) ² | 30 | 34 | - | dB |
| Stopband Rejection (130 to 134 MHz) ² | 25 | 33 | - | dB |
| Stopband Rejection (134 to 134.8 MHz) ² | 22 | 24 | - | dB |
| Stopband Rejection (145.2 to 146 MHz) ² | 22 | 24 | - | dB |
| Stopband Rejection (146 to 150 MHz) ² | 25 | 27 | - | dB |
| Stopband Rejection (150 to 155 MHz) ² | 30 | 38 | - | dB |
| Stopband Rejection (155 to 210 MHz) ² | 40 | 47 | - | dB |
| Source and Load Impedance | - | 50 | - | Ω |
| Ambient Temperature | - | 25 | - | $^{\circ}\text{C}$ |

- Notes:
1. Measured over passband, excluding final roll-offs to the 1 dB points. The amplitude ripple includes ripple (fast variations) and slope (slow variations).
 2. Taken relative to mean level over a 135.6 to 144.4 MHz frequency interval.
 3. Evaluated over a 135.315 to 144.685 MHz frequency interval.
 4. All electrical specifications apply over the full operating temperature range.

MAXIMUM RATINGS

| Parameter | Min | Max | Units |
|-----------------------------|-----|-----|--------------------|
| Storage Temperature Range | -40 | 85 | $^{\circ}\text{C}$ |
| Operating Temperature Range | 10 | 75 | $^{\circ}\text{C}$ |
| Input Power Level | - | 10 | dBm |

MATCHING CIRCUIT



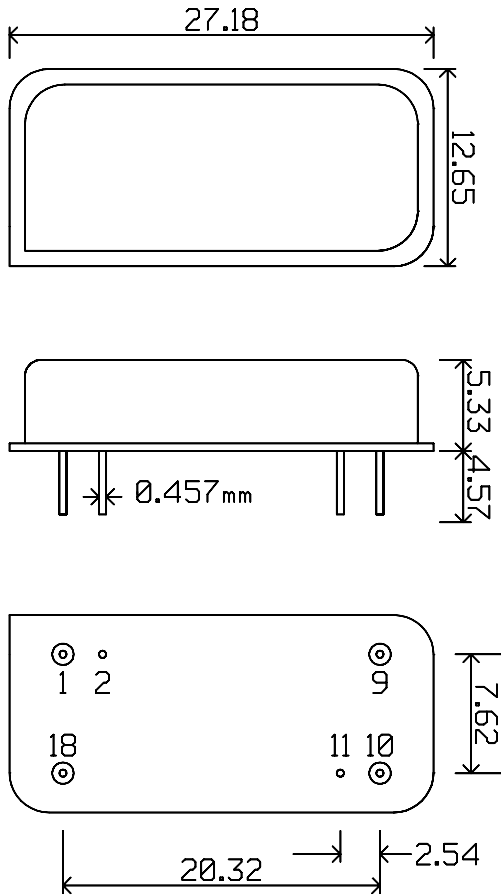
Typical component values:
(Minimum inductor Q = 45)

| | | | | | |
|-------|-----|----------|-------|-----|----------|
| Ls1 = | 36 | nH | Ls2 = | 105 | nH |
| Cp1 = | 47 | pF | Cp2 = | 22 | pF |
| Rp1 = | 120 | Ω | Rp2 = | 330 | Ω |

Notes:

1. Recommend the use of $\pm 5\%$ tolerance resistors and $\pm 2\%$ tolerance inductors and capacitors.
2. Component values shown are for guidance only and may change depending on board layout.

PACKAGE OUTLINE



Units: mm

Tolerances are ± 0.15 mm except for the overall length and width, which are nominal values.

Pin Configuration:

| | |
|----------------|------|
| Input: | 1 |
| Input return: | 18 |
| Output: | 10 |
| Output return: | 9 |
| Ground: | 2,11 |

Note: Other pin configurations are possible if preferred.

ISO 9001
Registered

All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.
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