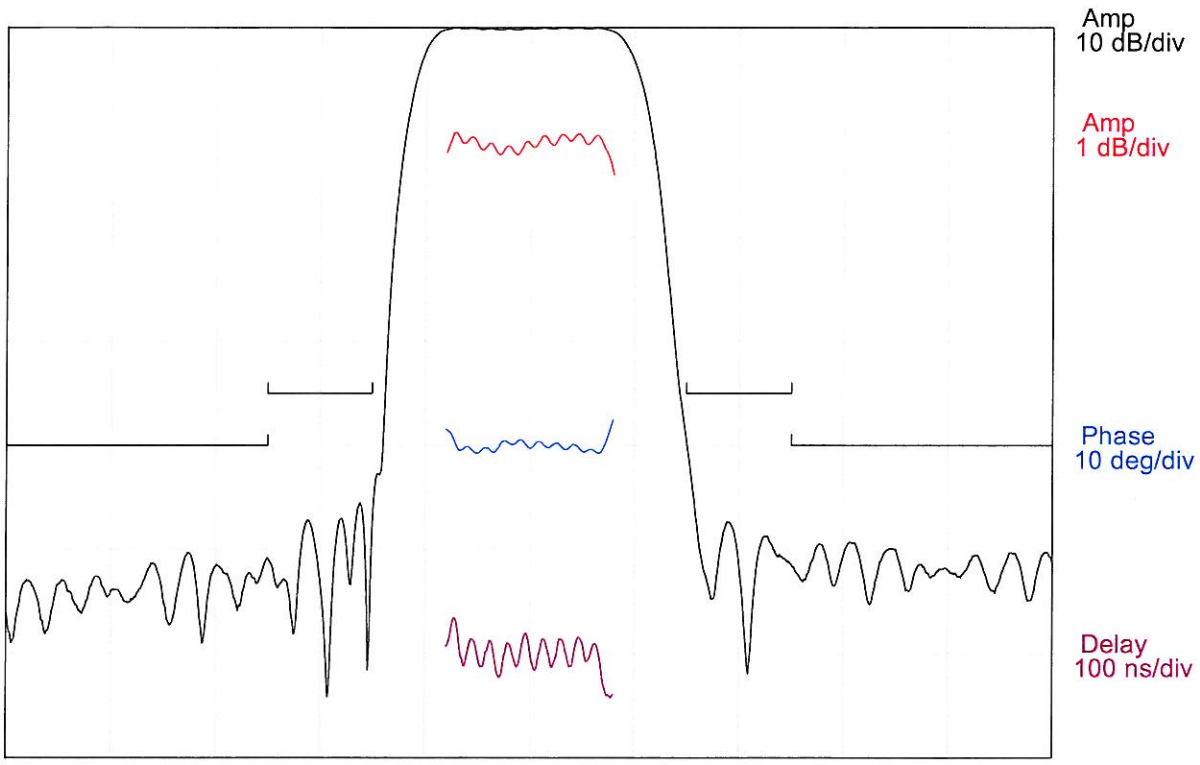
240 MHz SAW Filter
3.4 MHz Bandwidth
Part Number SF0240BA03242S

DESCRIPTION

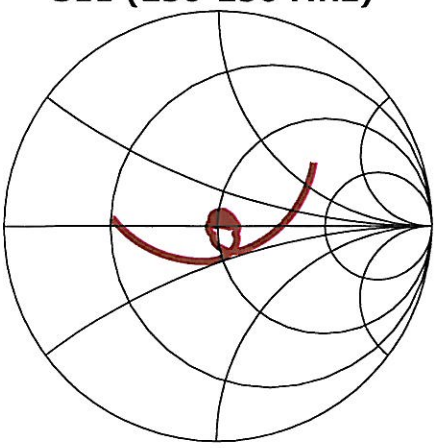
- 240 MHz SAW bandpass filter with minimum 3.4 MHz Bandwidth.
- 13.3 x 6.5 mm ceramic LCC package with 10 pads.
- RoHS compliant.

TYPICAL PERFORMANCE

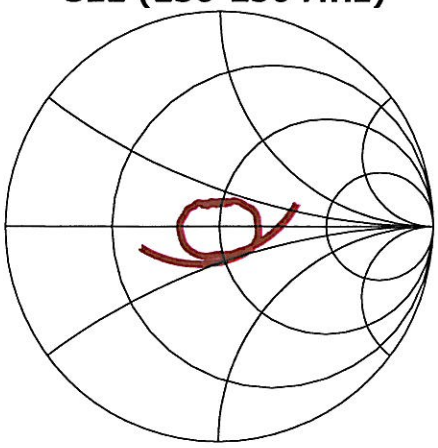


Center = 240 MHz, 2 MHz/div (25 kHz incr)

S11 (230-250 MHz)



S22 (230-250 MHz)



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SPECIFICATION

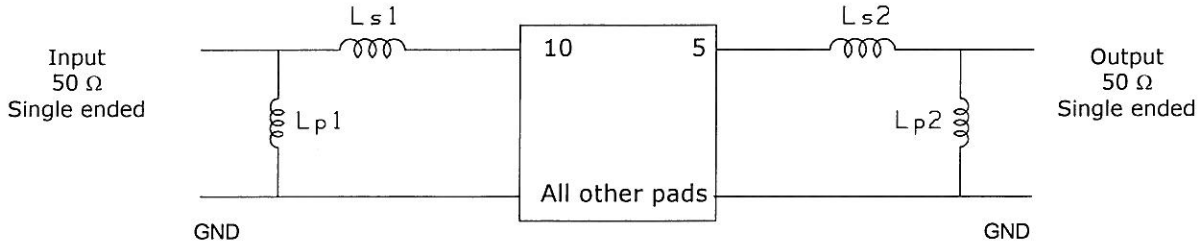
Parameter	Min	Typ	Max	Units
Center Frequency, (F_C) [1,3]	-	240	-	MHz
Minimum Insertion Loss	-	15.1	16	dB
1 dB bandwidth [2]	3.4	3.6	-	MHz
Lower 1 dB Frequency [2]	-	238.15	238.3	MHz
Upper 1 dB Frequency [2]	241.7	241.76	-	MHz
12 dB Bandwidth [2]	-	4.81	5	MHz
Lower 12 dB Frequency [2]	237.5	237.58	-	MHz
Upper 12 dB Frequency [2]	-	242.39	242.5	MHz
Passband Ripple (Fc±1.6 MHz)	-	0.5	1	dB p-p
Phase Ripple (Fc±1.6 MHz)	-	3	5	dB p-p
Group Delay Ripple (Fc±1.6 MHz)	-	70	120	ns p-p
Attenuation (235-237 MHz) [2]	35	40	-	dB
Attenuation (243-245 MHz) [2]	35	40	-	dB
Attenuation (170-235 MHz) [2]	40	45	-	dB
Attenuation (245-310 MHz) [2]	40	45	-	dB
In/Out Return Loss (Fc±1.6 MHz)	10	12	-	dB
Source and Load Impedance		50		ohms
Turnover Temperature (Tc)	-	35	-	°C

Notes:
1. Reference frequency at 23°C, computed as mean of the 12 dB frequencies.
2. All dB values are referenced to the insertion loss value.
3. Frequency versus temperature will be according to the following: dFc/Fc = -0.032 ppm * (T-Tc) ^{2} where (dFc/Fc) = Change in center frequency (in ppm) and T = temperature (in degrees C). Tc = the turnover temperature

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range (T)	-40	85	°C
Input Power Level	-	+13	dBm

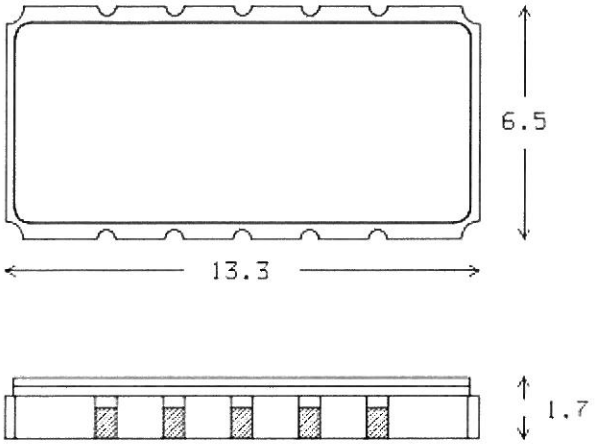
MATCHING CIRCUIT

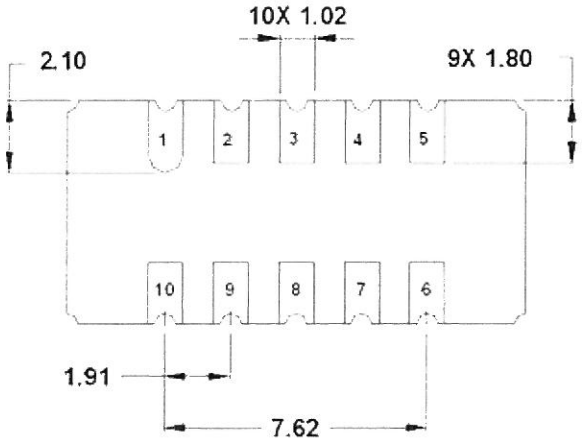


Ls1 = 30 nH, Lp1 = 11 nH, Ls2 = 18 nH, Lp2 = 12 nH

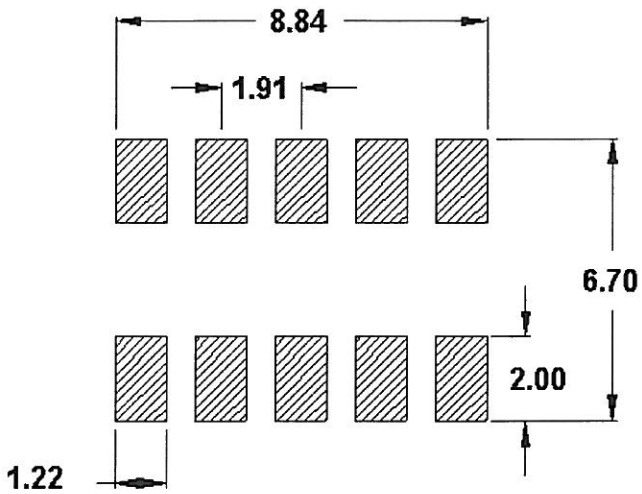
Notes:
- Recommend 2% or better tolerance matching components. Typical inductor Q=40.
- Optimum values may change depending on layout. Values shown intended as guide only.

PACKAGE OUTLINE





SUGGESTED FOOTPRINT



Units: mm

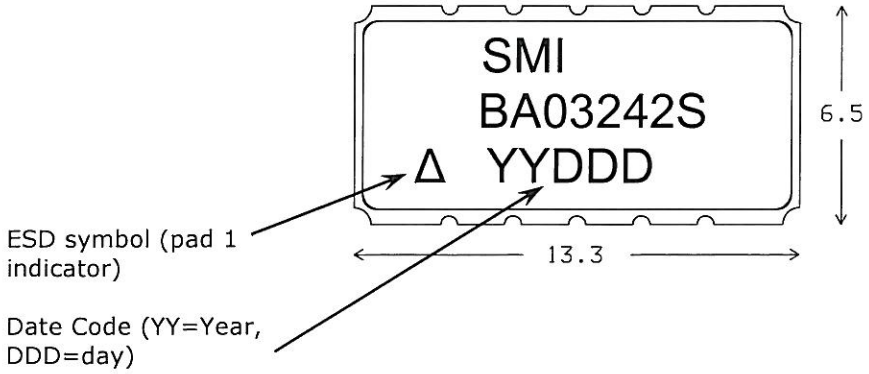
Tolerances are typically ±0.15 mm except where indicated.

Pad Configuration:

Input:	10
Output:	5
Ground:	All other pads

Package Material:
Body: Al_2O_3 ceramic
Lid: *Kovar, Ni* plated
Terminations: *Au* plating 1 µm min, over a 1.3-8.9 µm *Ni* plating

MARKING



ISO 9001 Registered

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