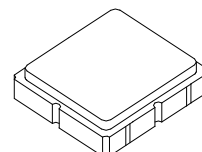


# SF2365E

**1575.42/2326.25 MHz**  
**SAW Filter**



**SM3030-6**

- **Low loss Diplexer for GPS and SDARS (Sirius) Applications**
- **3.0 x 3.0 x 1.3 mm Surface-Mount Case**
- **No Matching Network Required for Operation at 50Ω**
- **RoHS Compatible**

## Absolute Maximum Ratings

Rating	Value	Units
Source Power	10	dBm
DC voltage	6	VDC
Storage Temperature Range	-45 to +125	°C
Operating Temperature Range	-45 to +125	°C

Characteristics - GPS Output	Sym	Notes	Min	Typ @25°C	Max	Units
Center Frequency	$f_c$			1575.42		MHz
Maximum Insertion Attenuation 1574.397 to 1576.443 MHz				1.2	2.4	dB
Amplitude Ripple 1574.397 to 1576.443 MHz				0.2	1.5	dB
Attenuation						dB
10.00 to 1500.00 MHz			31	36		
1500.00 to 1525.42 MHz			18	32		
1610.00 to 1625.00 MHz			18	30		
1625.42 to 2000.00 MHz			35	42		
2000.00 to 3000.00 MHz			24	31		
Input VSWR 1574.397 to 1576.443 MHz				1.4	2.0	
Output VSWR 1574.397 to 1576.443 MHz				1.3	2.0	

Single Ended Input / Output, Impedance match	No matching network required for operation at 50 ohms					
Case Style	SM3030-6 3 x 3 mm Nominal Footprint					
Lid Symbolization (YY=year, WW=week, S=shift)	5P YWWS					

Characteristics - SDARS Output	Sym	Notes	Min	Typ @25°C	Max	Units
Center Frequency	$f_c$			2326.25		MHz
Maximum Insertion Attenuation 2320.00 to 2332.50 MHz				1.4	2.0	dB
Amplitude Ripple 2320.00 to 2332.50 MHz				0.4	1.1	dB
Attenuation						dB
10.00 to 2100.00 MHz			20	24		
2100.00 to 2200.00 MHz			17	22		
2420.00 to 3000.00 MHz			25	31		
Input VSWR 12320.00 to 2332.50 MHz				1.6	2.0	
Output VSWR 2320.00 to 2332.50 MHz				1.6	2.0	
Isolation between GPS and SDARS path						dB
15794.397 to 1576.443 MHz			25	30		
2320.00 to 2332.50 MHz			23	28		



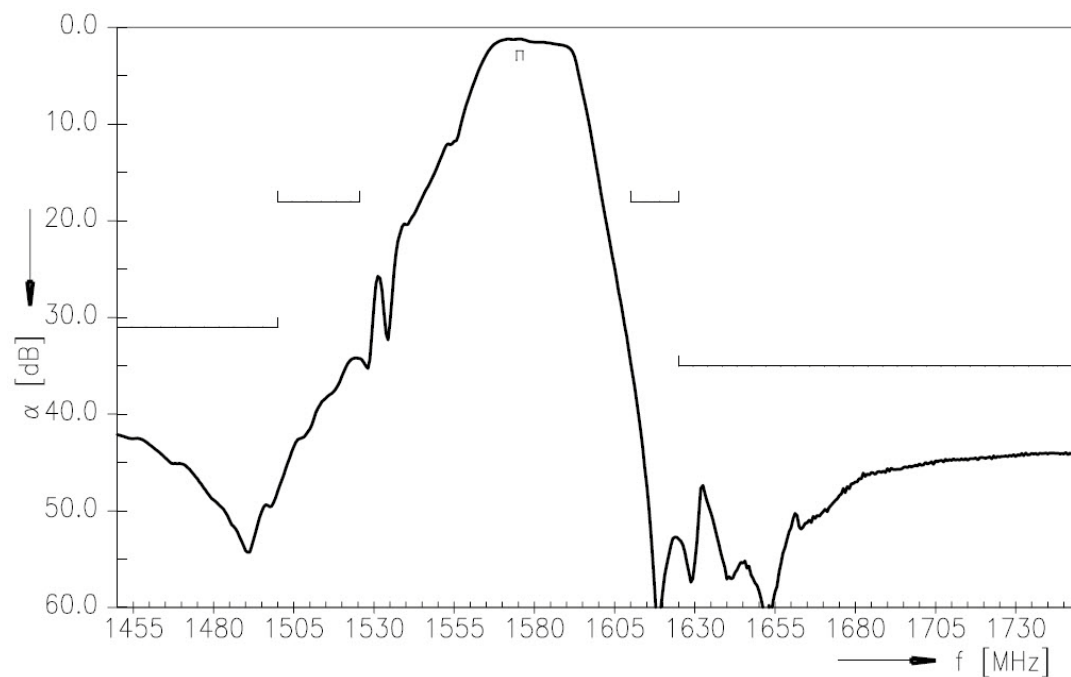
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

## NOTES:

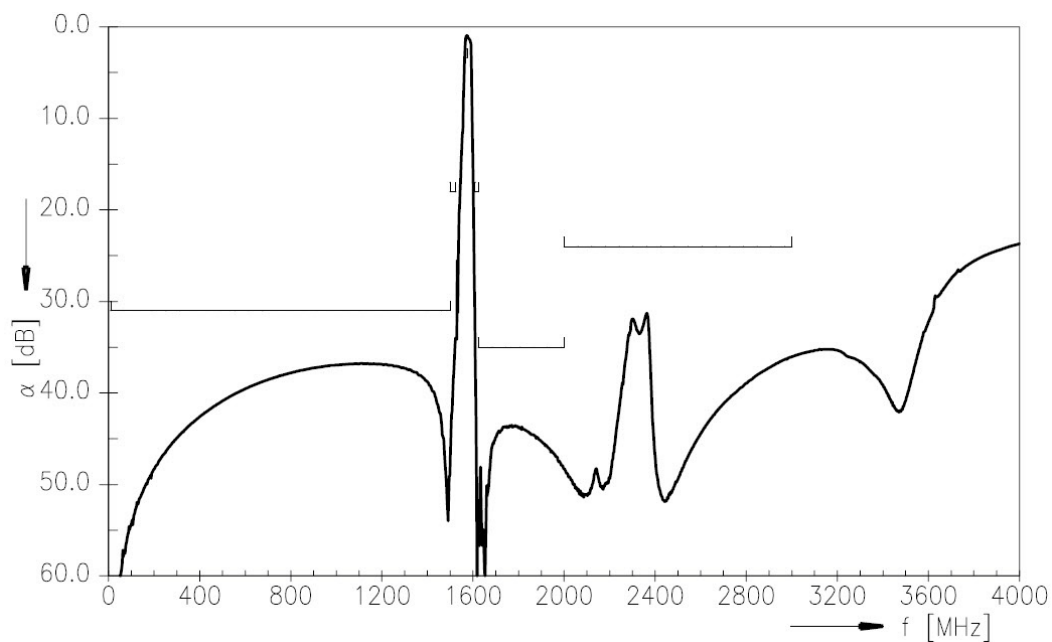
1. US and international patents may apply.
2. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

## Frequency Characteristics

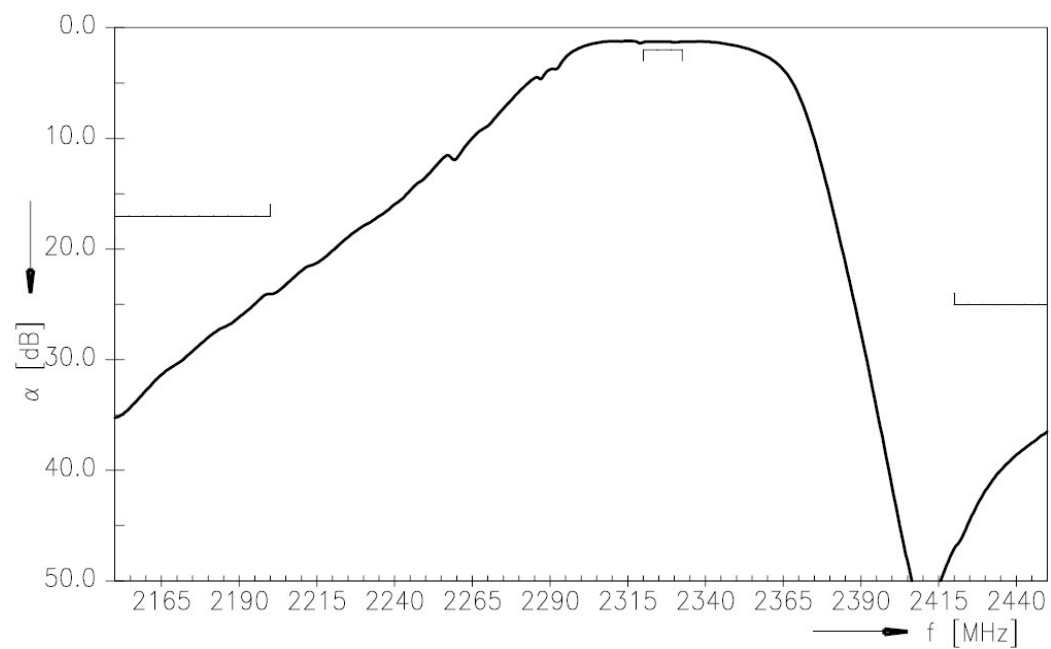
### GPS Transfer Function



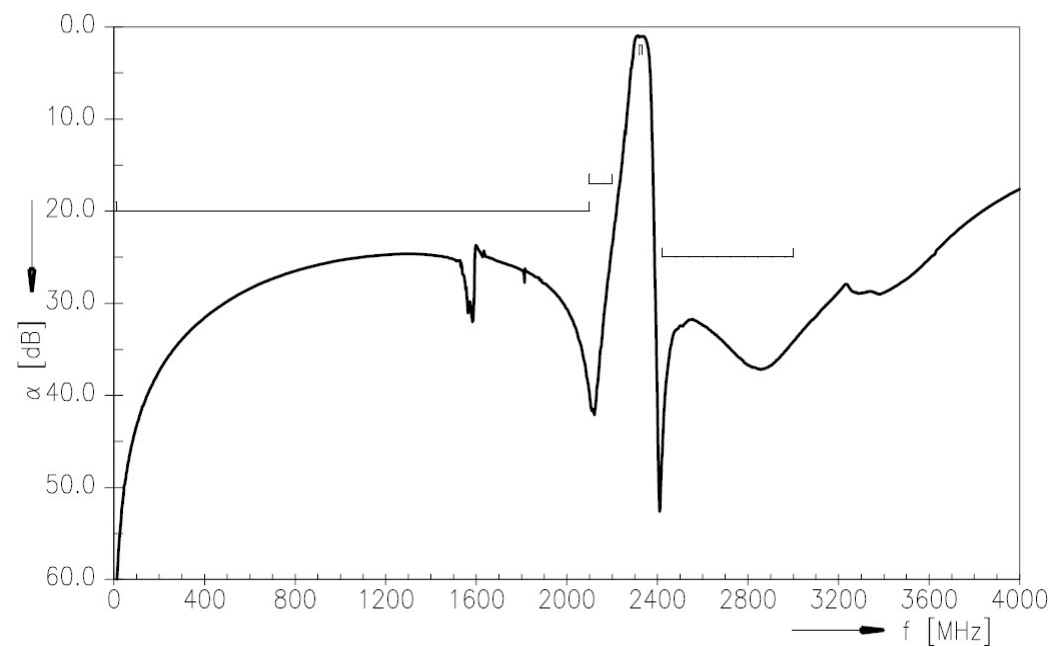
### GPS Transfer Function - Wideband



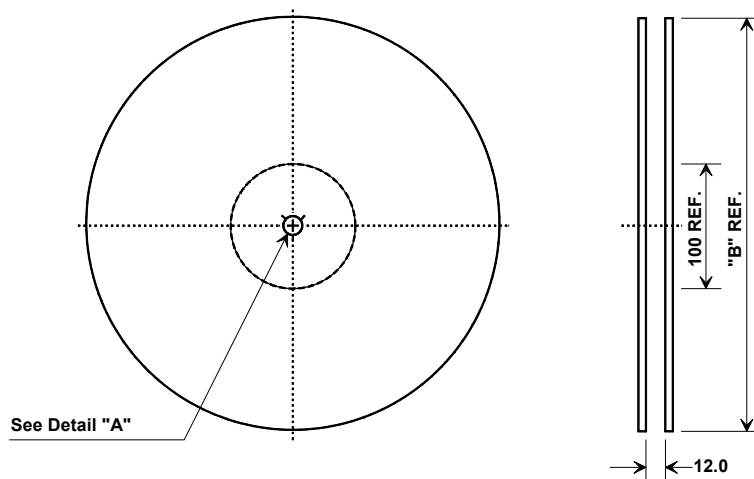
## SDARS Transfer Function



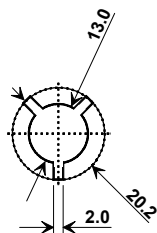
## SDARS Transfer Function - Wideband



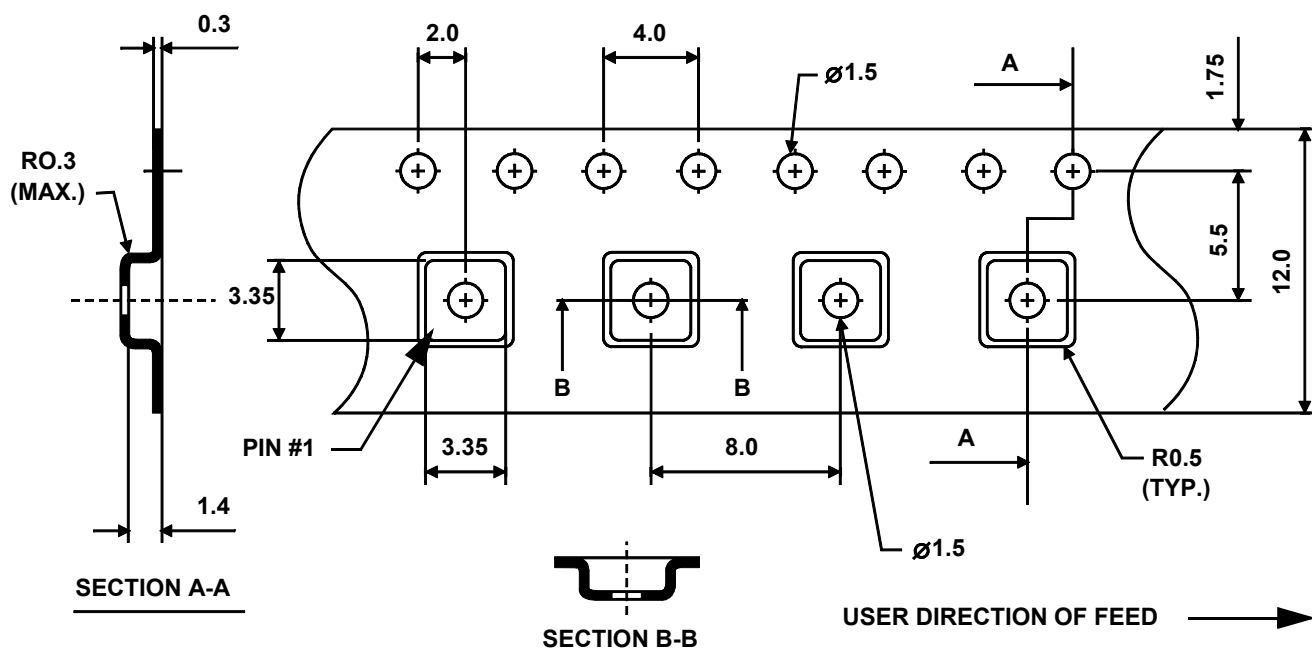
## Tape and Reel Specifications



"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000



### COMPONENT ORIENTATION

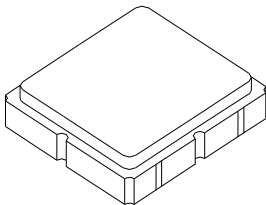


# SM3030-6 Case

## 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

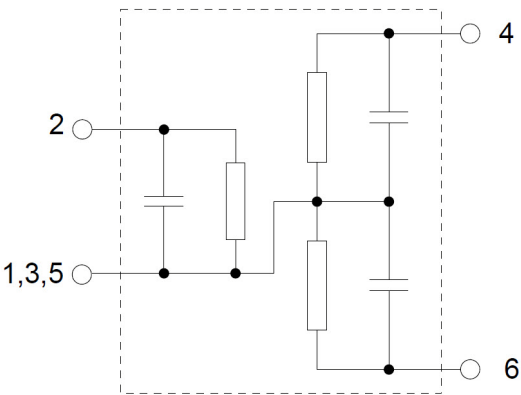
### Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0			0.118	
B		3.0			0.118	
C		1.3			0.051	
D		0.9			0.035	
E		2.54			0.100	
F		1.6			0.063	
G		0.85			0.033	
H		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	

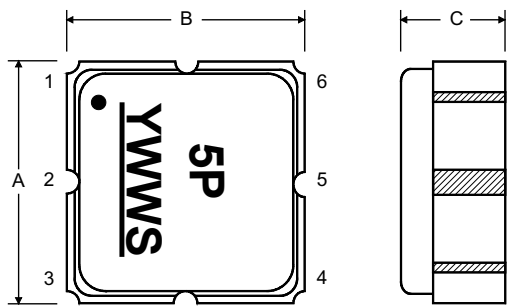


### Electrical Connections

Connection	Terminals
GPS Input	4
SDARS Input	6
Output	2
Ground	1, 3, 5



TOP VIEW



BOTTOM VIEW

