



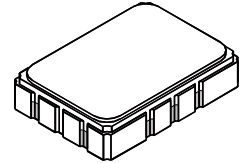
AEC-Q200
This component was always
RoHS compliant from the first
date of manufacture.

- SAW Filter, 895 MHz, 15 MHz BW
- 7.0 X 5.0 mm 10 pin Surface-Mount Case
- Complies with Directive 2002/95/EC (RoHS)



SF2145B

**895 MHz
SAW Filter**



SMP-03

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+20	dBm
Maximum DC Voltage Between any Two Terminals	0	VDC
Operating Temperature Range	-20 to +70	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			895		MHz
Source Impedance, single ended				50		Ω
Load Impedance, single ended				50		Ω
1 dB Bandwidth				18		MHz
Insertion Loss, 894 to 895.5 MHz	IL			8.5	9.0	dB
Insertion Loss Variation: Any point within 894 to 895.5 MHz measured at a constant temperature with the RF input level varying from +10 to +20 dBm					0.3	Δ dB
Amplitude Ripple, 894 to 895.5 MHz				.35	.75	dB
Average Group Delay, 894 to 895.5 MHz			804	814	824	ns
Group Delay Variation, 894.0 to 895.5 MHz				10	25	ns _{P-P}
Input / Output Return Loss at f_c			10	15		dB
Temperature Coefficient				-18		ppm/K

Case Style	SMP-03 7.0 x 5.0 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, S=Shift)	RFM, SF2145B, YYWWS



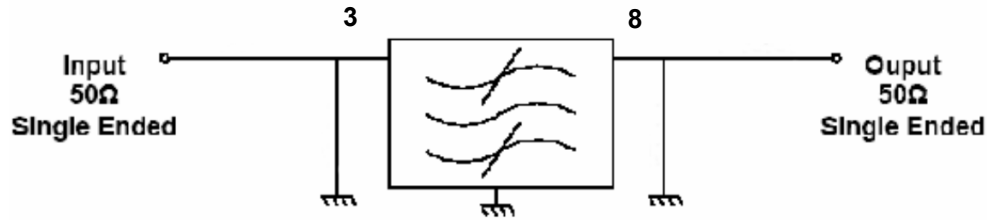
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

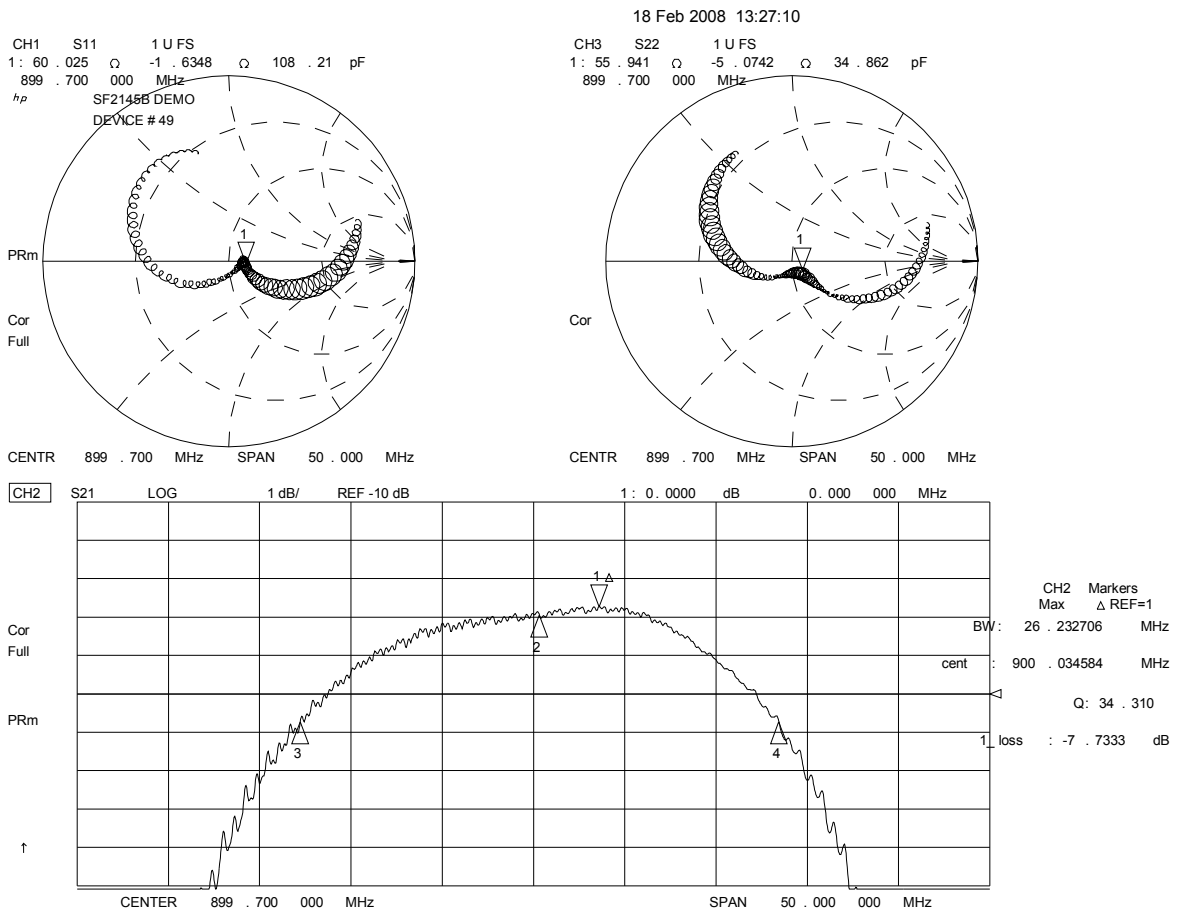
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

Testing Environment

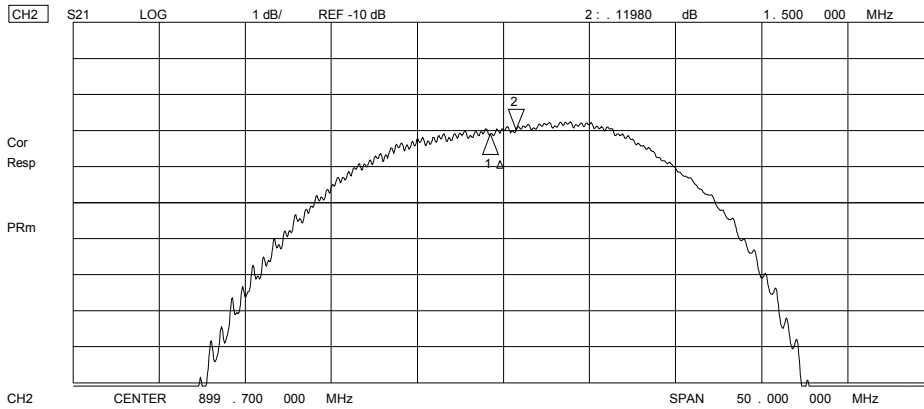
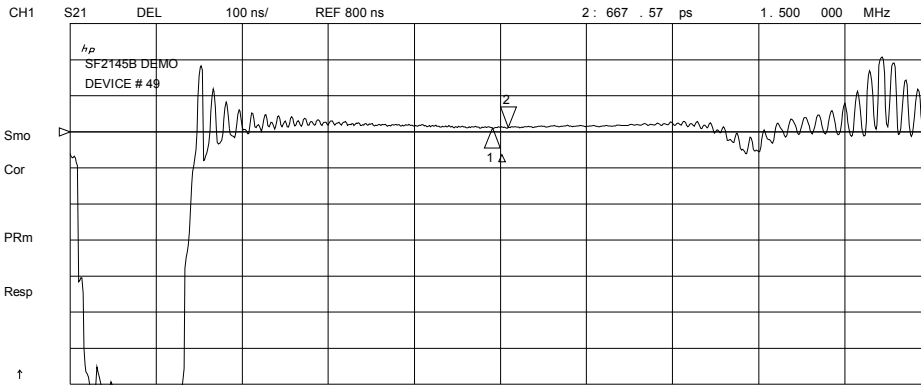
50 Ω / 50 Ω CONFIGURATION



Note: Unmatched Filter to 50Ω Input / Output.

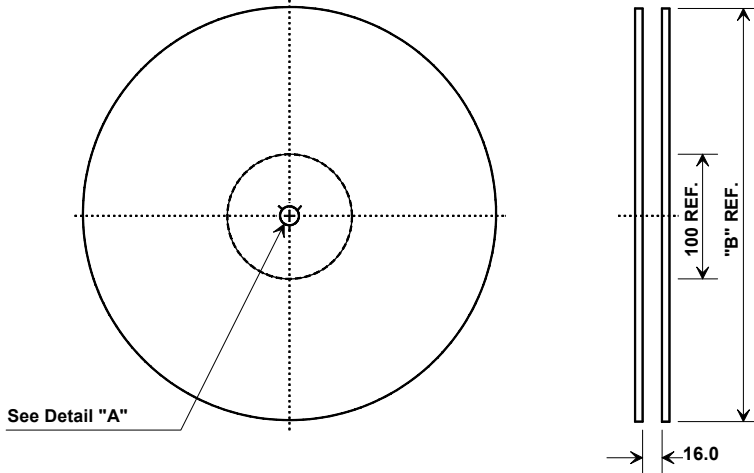


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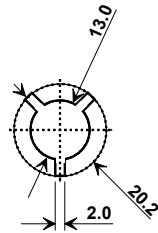


Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

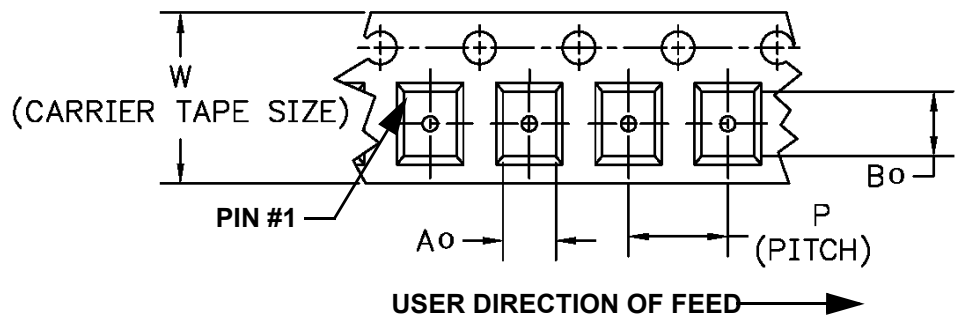
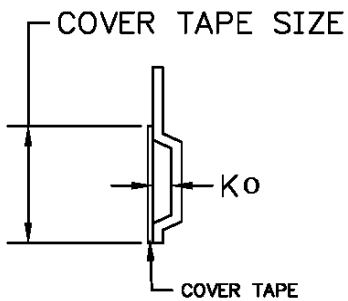


"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000



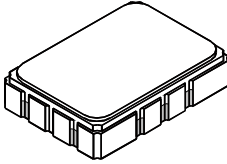
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.5 mm
Bo	7.5 mm
Ko	2.0 mm
Pitch	8.0 mm
W	16.0 mm

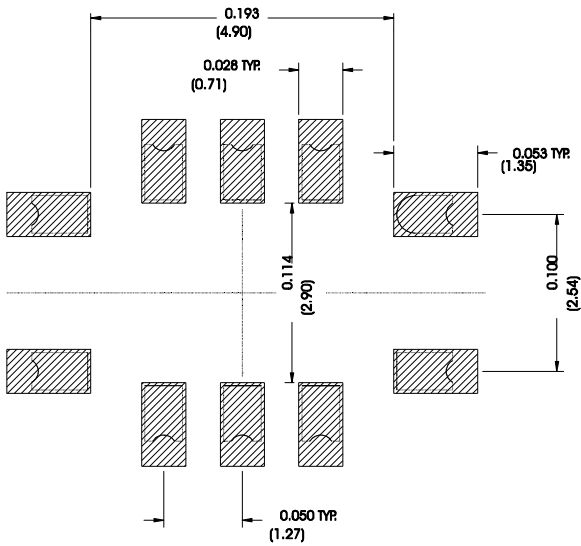


SMP-03 Case

10-Terminal Ceramic Surface-Mount Case 7 x 5 mm Nominal Footprint



Recommended PCB Footprint



Case Dimensions

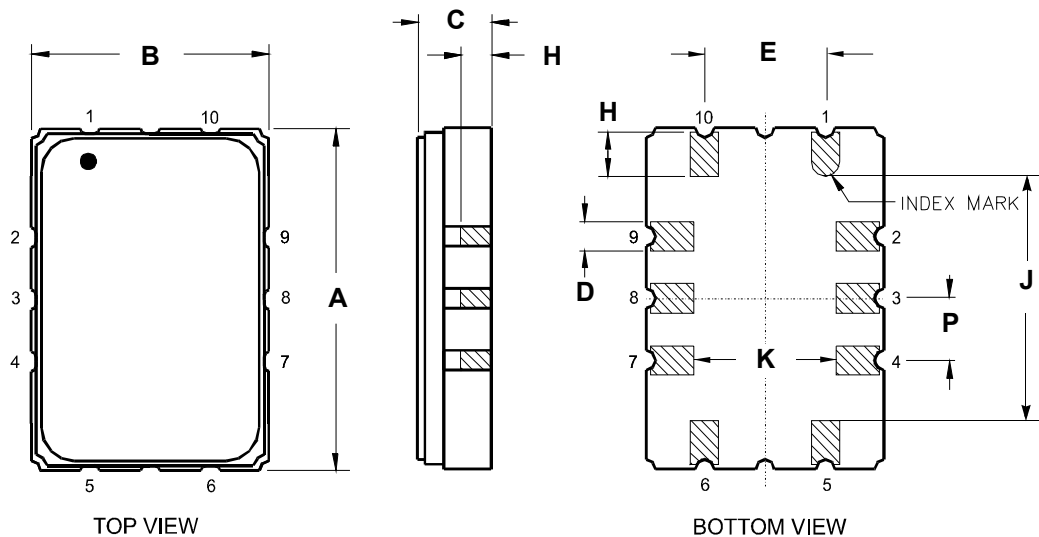
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

Electrical Connections

Connection	Terminals
Input (Port 1)	3
Output (Port 2)	8
Case Ground	2, 4, 7, 9
To Be Grounded	1, 2, 4, 5, 6, 7, 9, 10

Materials

Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic
Pb Free	



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

