



AEC-Q200

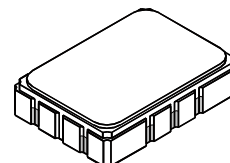
This component was always RoHS compliant from the first date of manufacture.

- 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



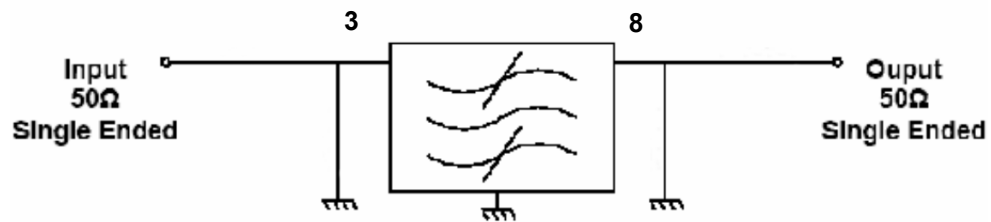
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

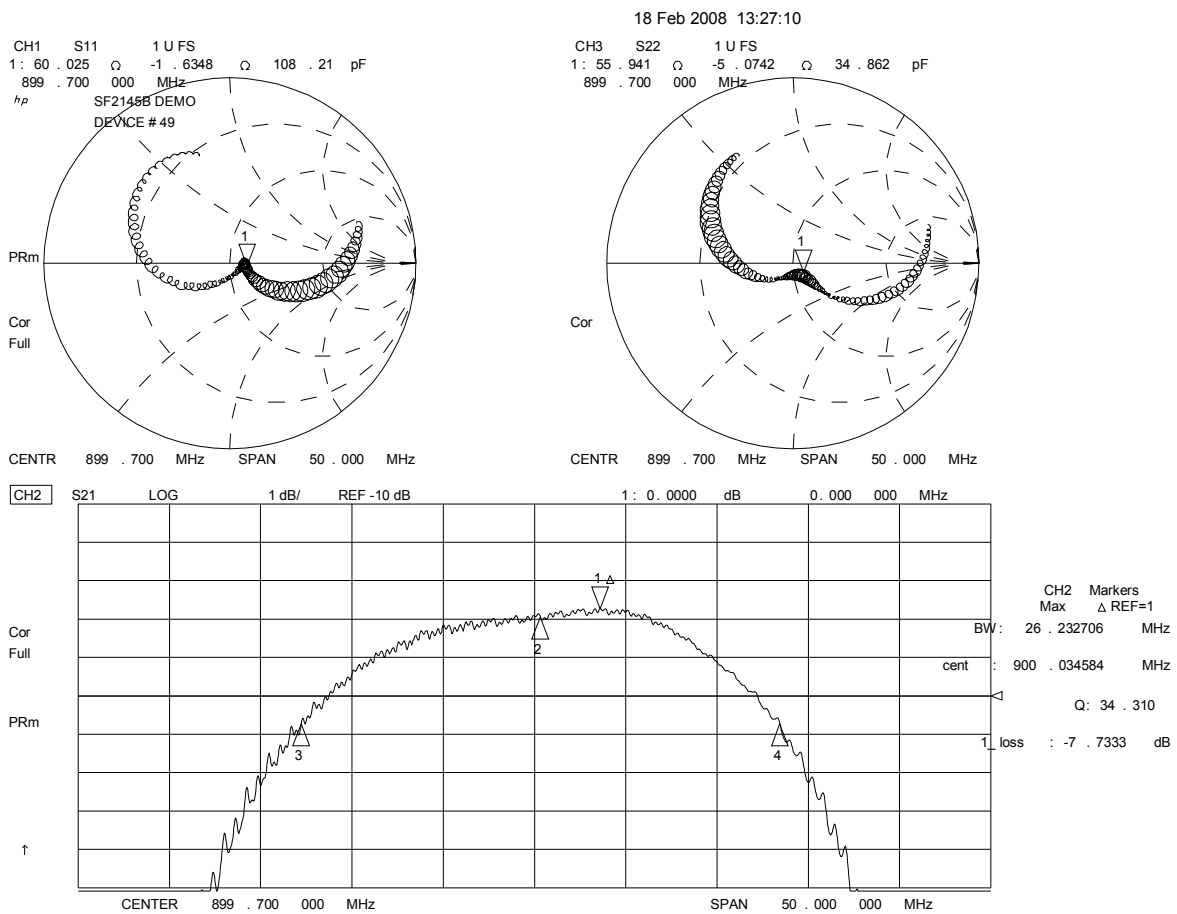
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

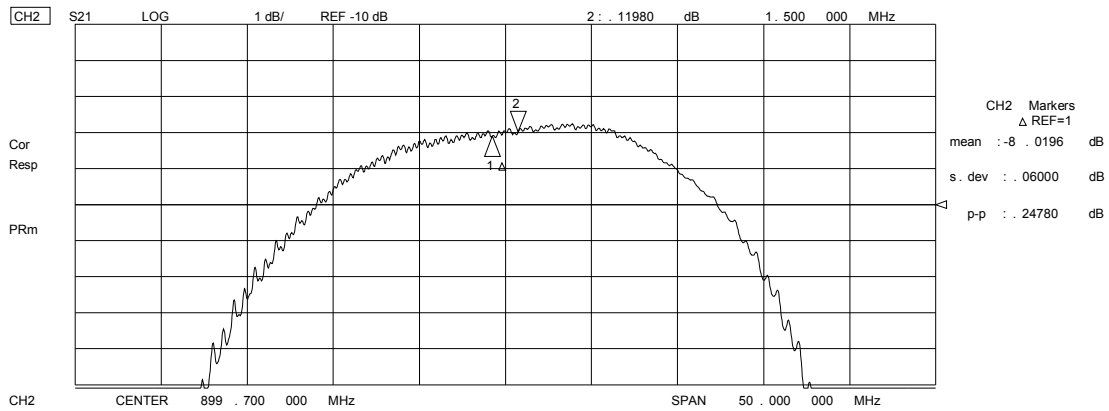
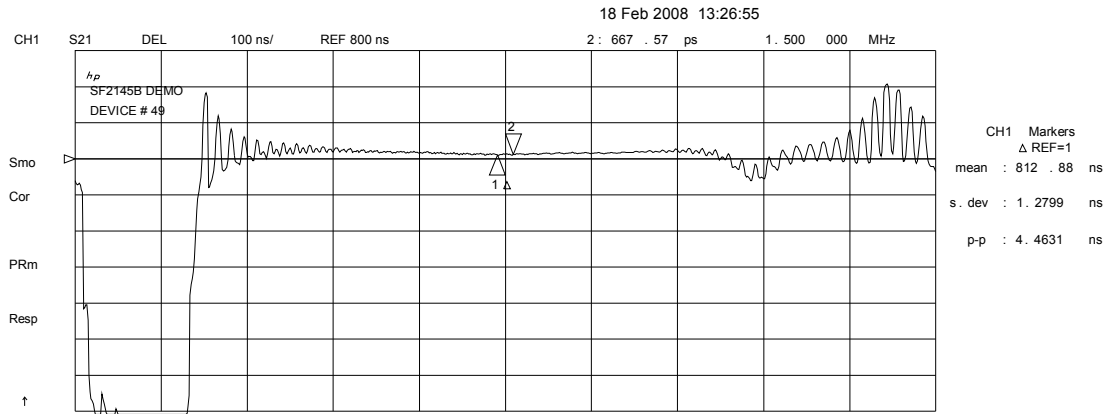
Testing Environment

50 Ω / 50 Ω CONFIGURATION



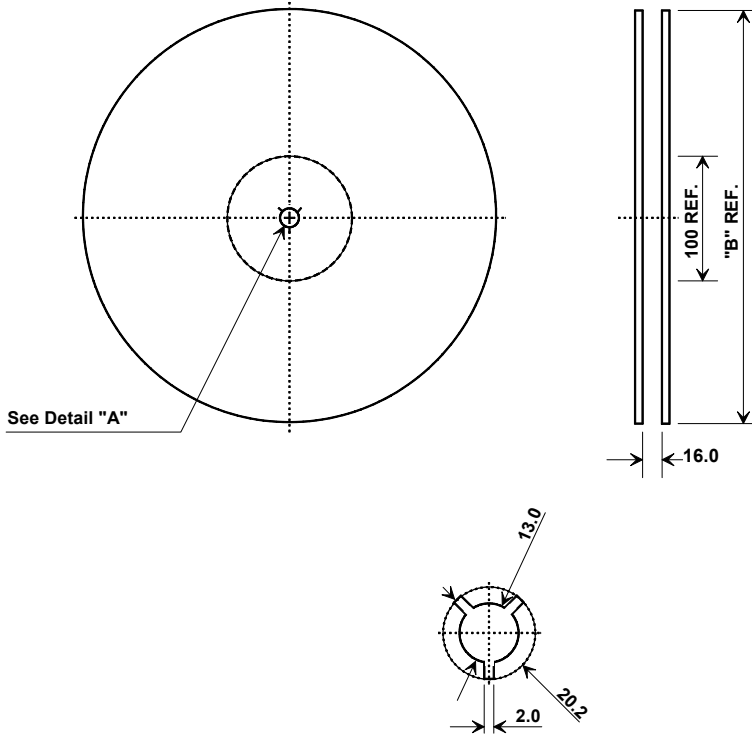
Note: Unmatched Filter to 50 Ω Input / Output.





Tape and Reel Specifications

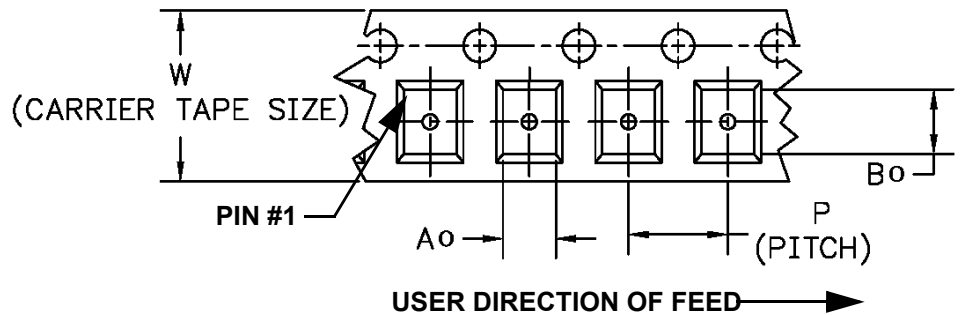
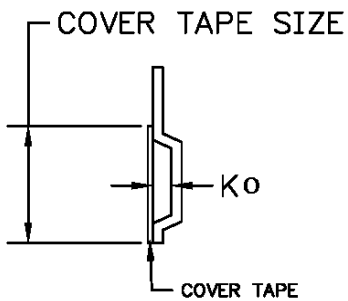
Tape and Reel Standard per ANSI/EIA-481



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

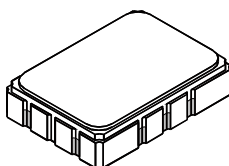
COMPONENT ORIENTATION and DIMENSIONS

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

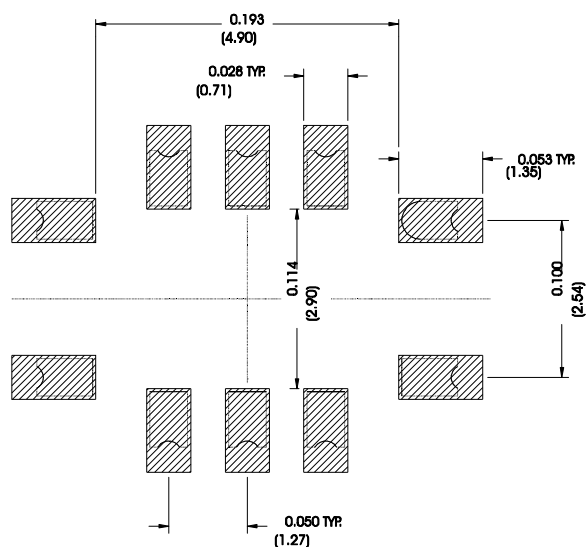


SMP-03 Case

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



Recommended PCB Footprint



Case Dimensions

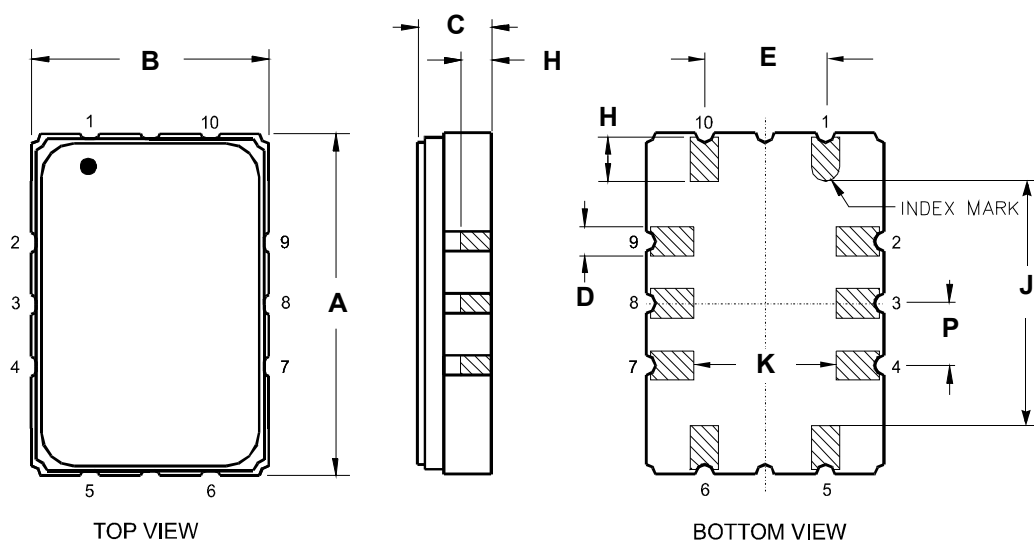
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113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

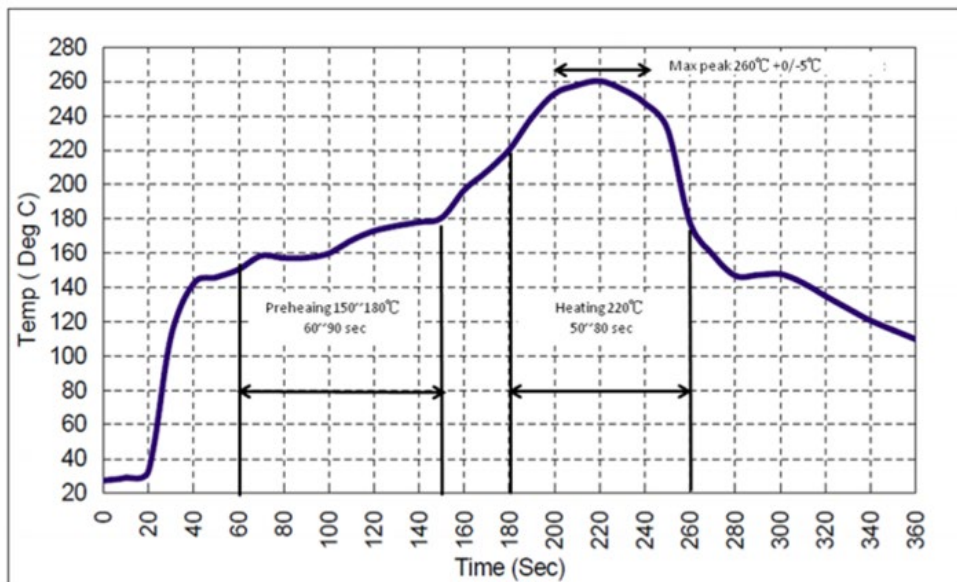
Materials

Solder Pad Plating	0.3 to 1.0 μ m Gold over 1.27 to 8.89 μ m Nickel
Lid Plating	2.0 to 3.0 μ m Nickel
Body	Al ₂ O 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.



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