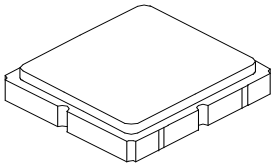
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

SF2487E

845 MHz SAW Filter



SM3030-6

- Moisture Sensitivity Level: 1

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	16	dBm
DC Voltage on any Non-ground Terminal	6	V
Operable Temperature Range	-40 to +125	°C
Specification Temperature Range	-40 to +125	°C
Storage Temperature Range in Tape and Reel	-30 to +85	°C

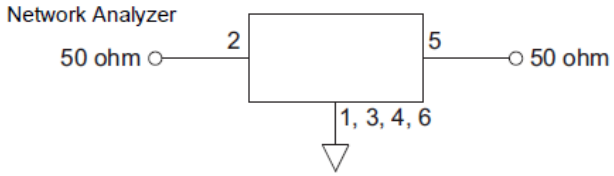
Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			845		MHz
Insertion Loss (839 to 851 MHz)	IL			1.4	3.0	dB
Amplitude Ripple (839 to 851 MHz)				0.3	1.8	dB
VSWR (839 to 851 MHz)				1.5	2.2	
Group Delay Variation (839 to 851 MHz)				15	40	ns
Attenuation, reference level from 0 dB						dB
10 to 804 MHz			35	37		
869 to 894 MHz			30	39		
894 to 920 MHz			35	42		
920 to 1210 MHz			35	42		
1210 to 1500 MHz			35	45		
1500 to 2000 MHz			30	33		
2000 to 2600 MHz			20	25		
2600 to 3000 MHz			20	22		
Temperature Coefficient of Frequency				-36		ppm/°C
Case Style	SMD 3.0 x 3.0 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	D8, YWWS					
Nominal Impedance	50Ω					

Electrical Connections

Connection	Terminals
Input	2
Output	5
Ground	All Others

Measurement Circuit



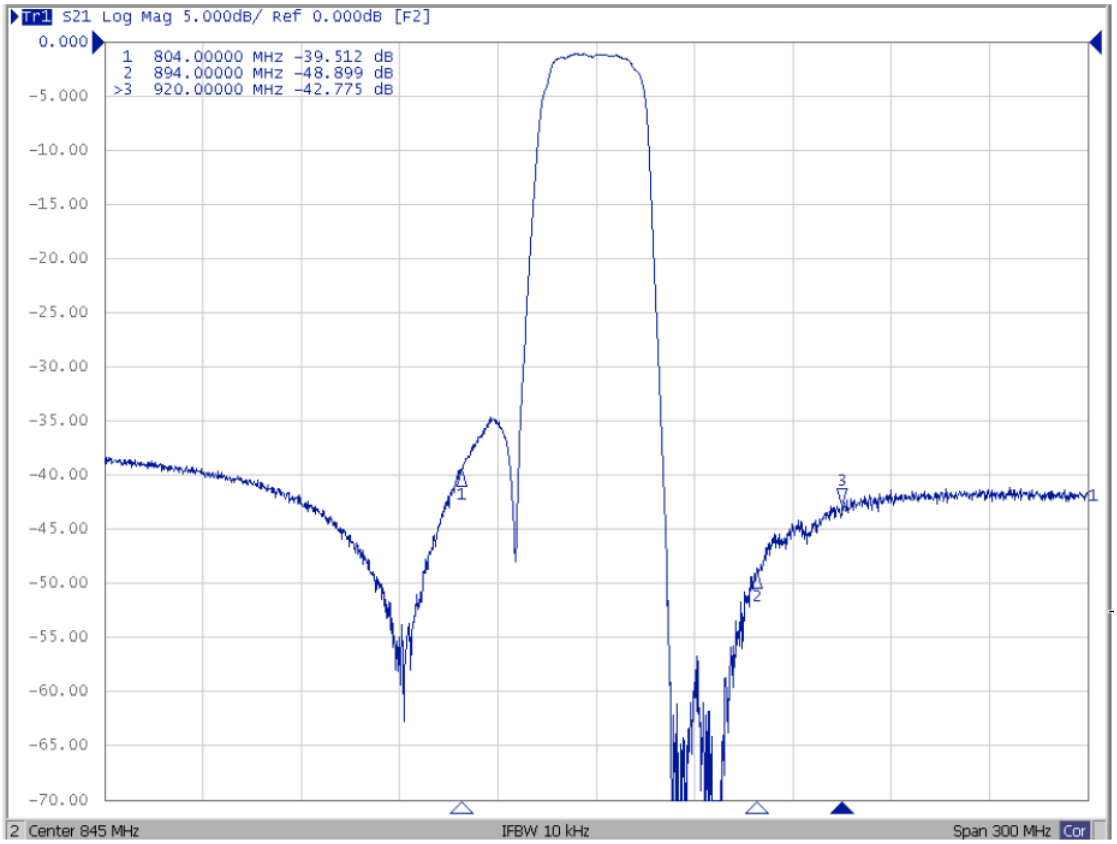
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

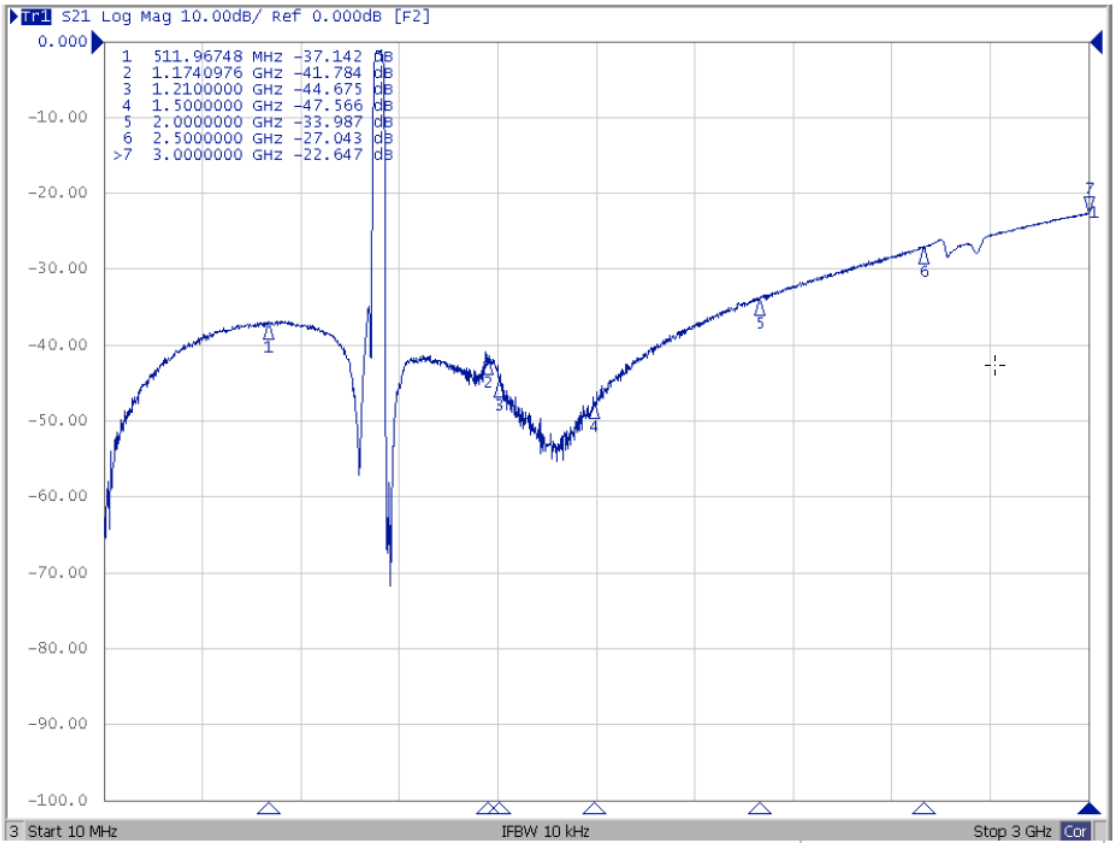
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Frequency Characteristics:

Span: 300 MHz

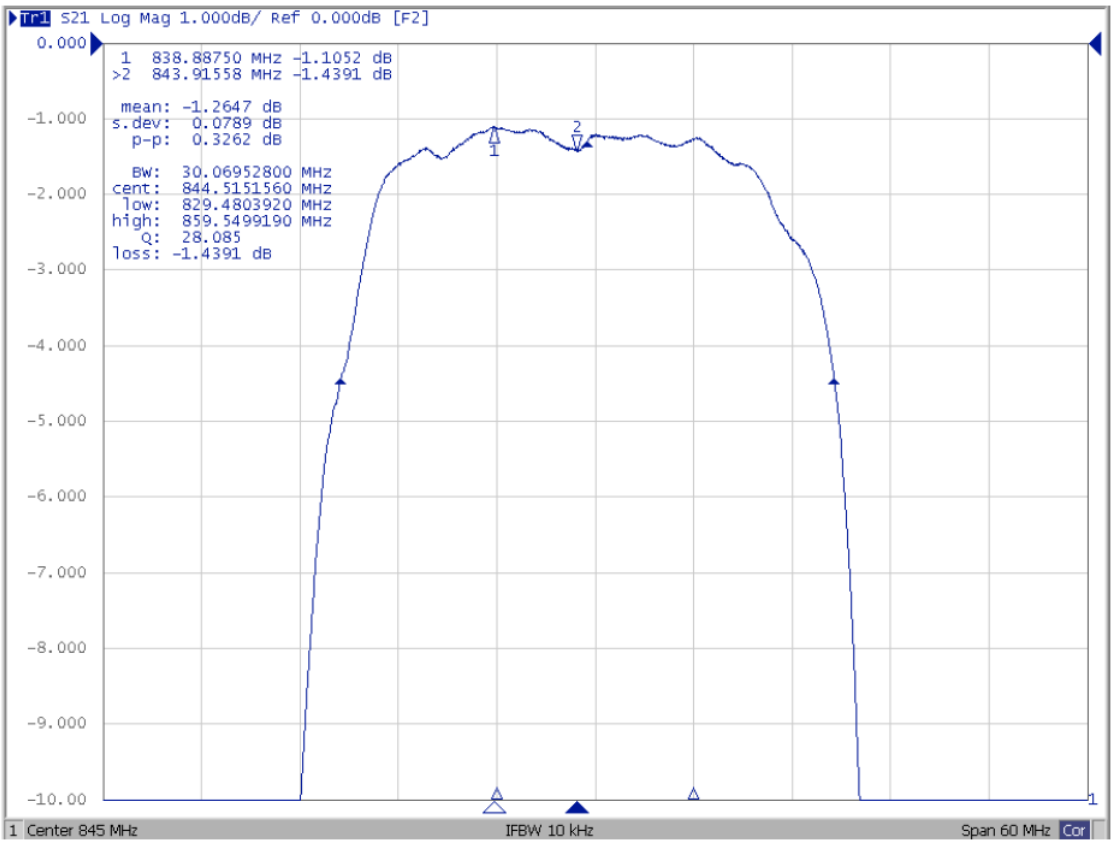


Span: 4500 MHz

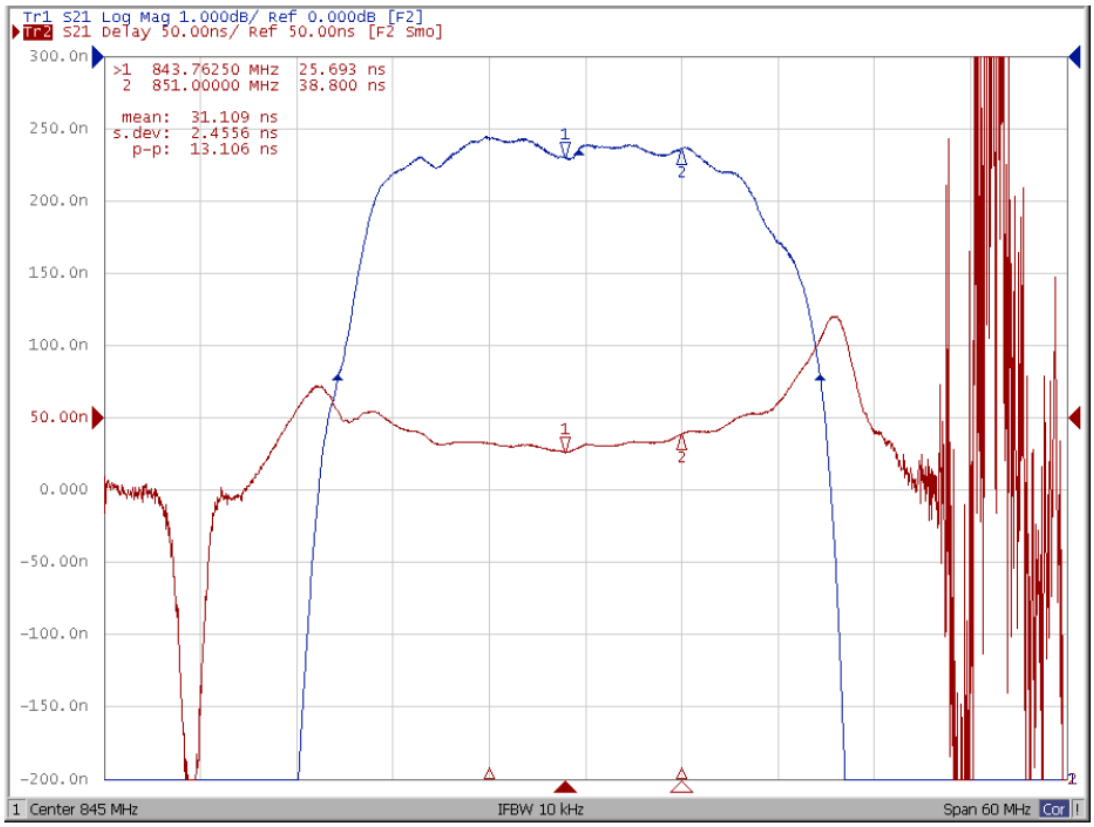


Frequency Characteristics:

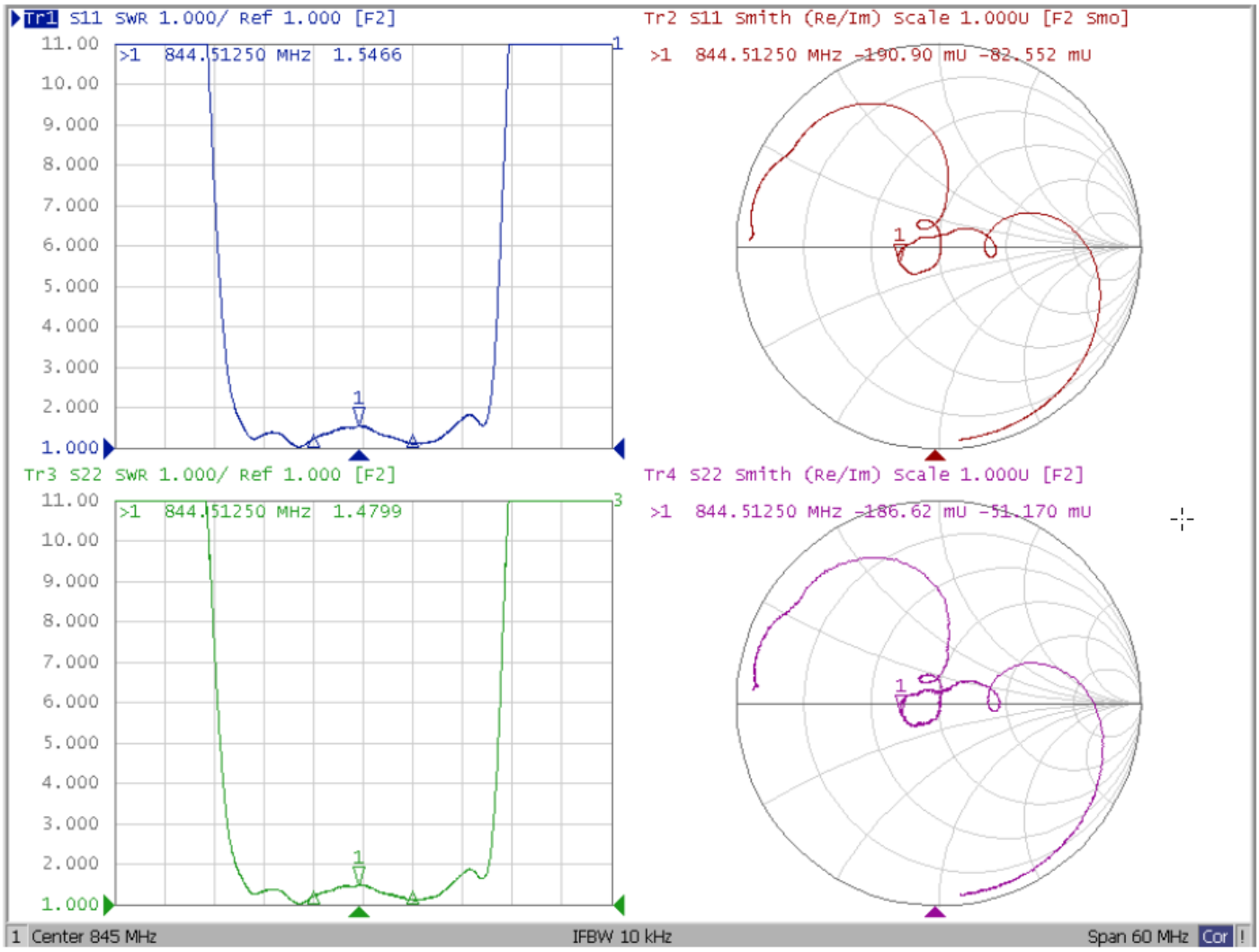
Span: 60 MHz



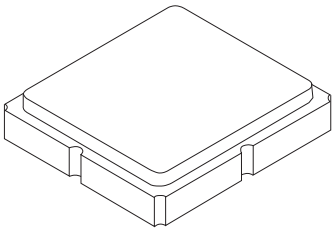
Span: 60 MHz

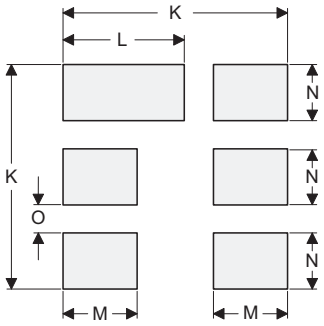


Frequency Characteristics:
Reflection Response (VSWR, Smith Chart)



SM3030-6 Ceramic 6-Terminal Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint





PCB Footprint Top View

Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K	-	3.20	-	-	0.126	-
L	-	1.70	-	-	0.067	-
M	-	1.05	-	-	0.041	-
N	-	0.81	-	-	0.032	-
O	-	0.38	-	-	0.015	-
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030

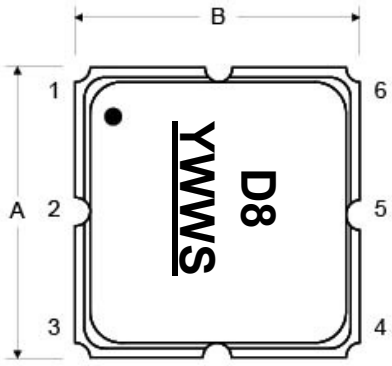
Case Materials

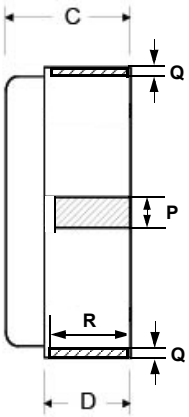
Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

Electrical Connections

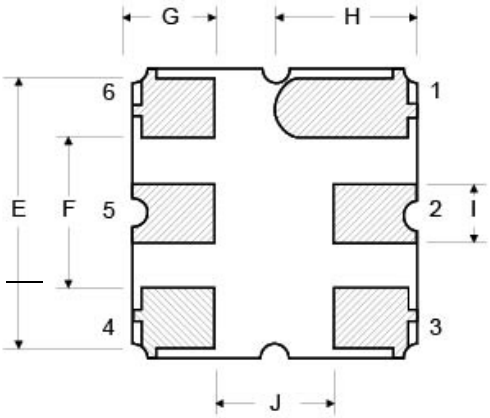
Connection	Terminals
Input	2
Output	5
Case Ground	All others

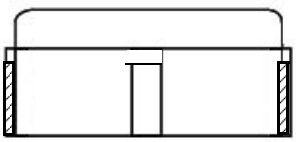
TOP VIEW



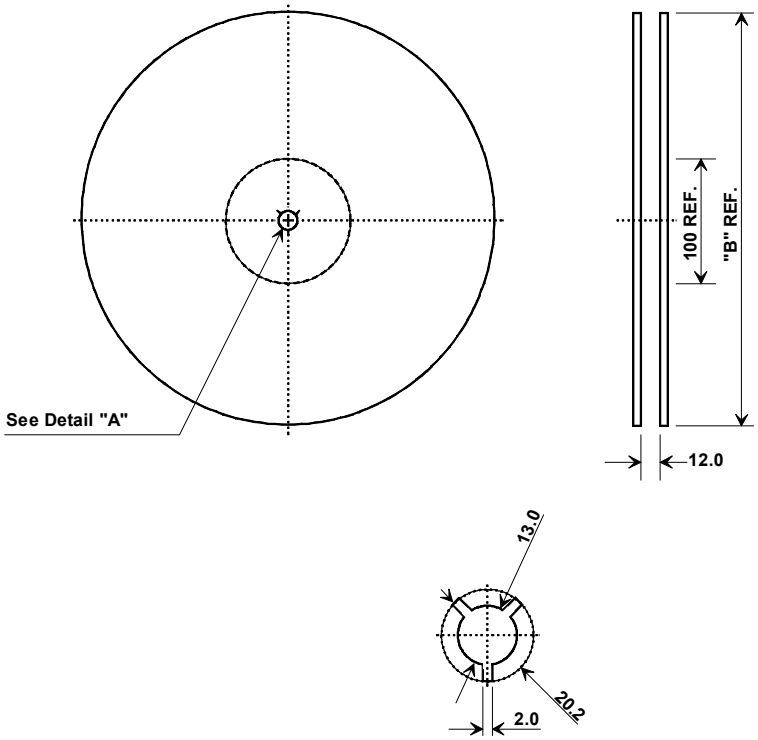


BOTTOM VIEW





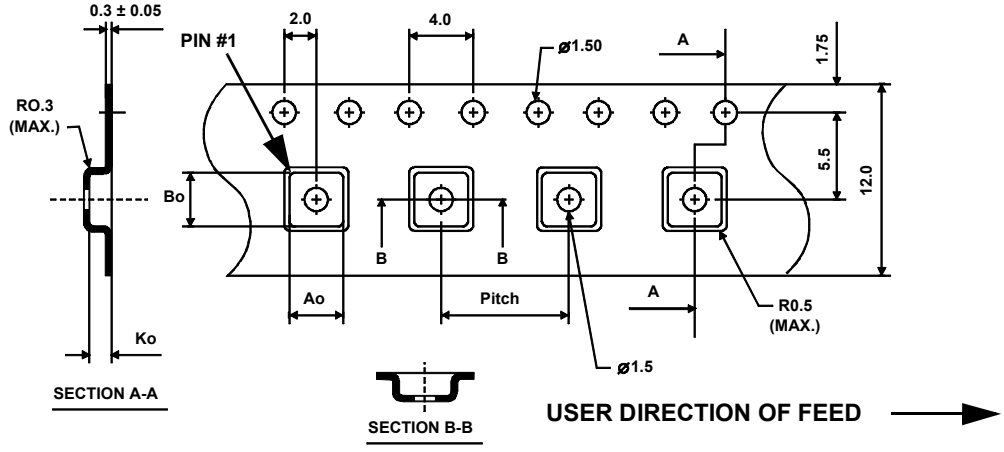
Tape and Reel Specifications



"B"		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	3.3 mm
Bo	3.3 mm
Ko	1.4 mm
Pitch	8.0 mm
W	12.0 mm



Recommended Reflow Profile

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