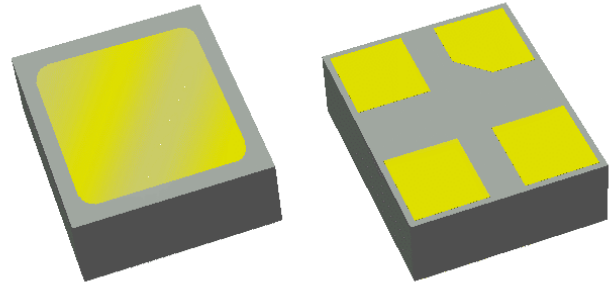


Data Sheet

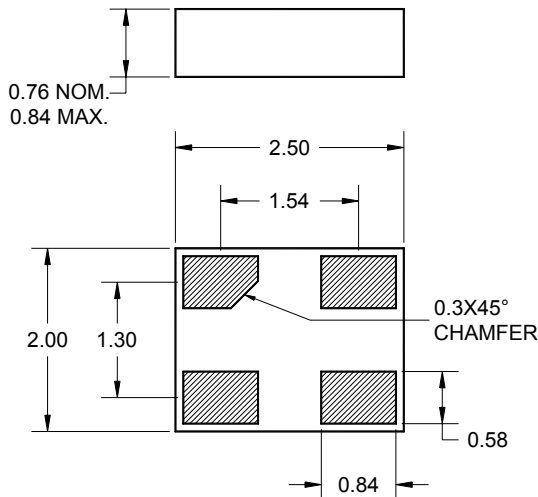
Features

- For AMPS, TDMA, CDMA applications
- Usable bandwidth 25 MHz
- High attenuation
- No impedance matching required for operation at 50 Ω
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



Package

Surface Mount 2.50 x 2.00 x 0.76 mm

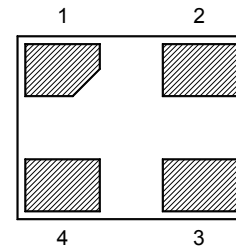


Dimensions shown are nominal in millimeters
All tolerances are $\pm 0.10\text{mm}$

Body: Al_2O_3 ceramic
Lid: Kovar or Alloy 42, Au over Ni plated
Terminations: Au plating 0.5 - 1.0 μm ,
over a 2 - 6 μm Ni plating

Pin Configuration

Bottom View



Pin No.	Description
1	Input
3	Output
2,4	Case ground

Data Sheet

Electrical Specifications ⁽¹⁾

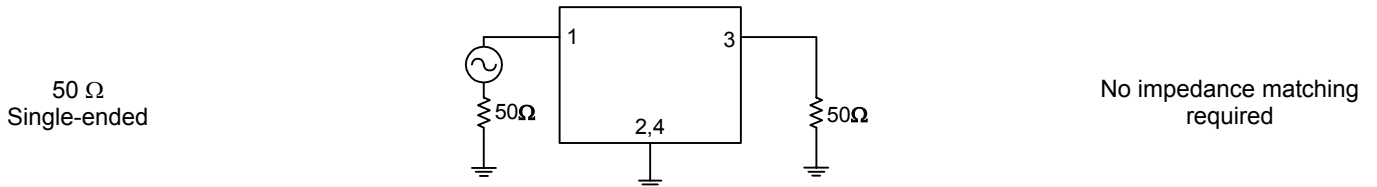
Operating Temperature Range: ⁽²⁾ -20 to +70 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	836.5	-	MHz
Maximum Insertion Loss 824 - 849 MHz	-	2.2	3.2	dB
Absolute Attenuation				
DC - 760 MHz	35	37	-	dB
760 - 790 MHz	30	33	-	dB
790 - 804 MHz	35	38	-	dB
869 - 894 MHz	38	42	-	dB
894 - 1080 MHz	35	37	-	dB
1080 - 2600 MHz	32	35	-	dB
Amplitude Ripple 824 - 849 MHz	-	0.8	1.8	dB p-p
Input/Output Return Loss 824 - 849 MHz	9.5	12	-	dB
Source Impedance ⁽⁴⁾	-	50	-	Ω
Load Impedance ⁽⁴⁾	-	50	-	Ω

Notes:

1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance shown

Test Circuit:



Data Sheet

Electrical Specifications ⁽¹⁾

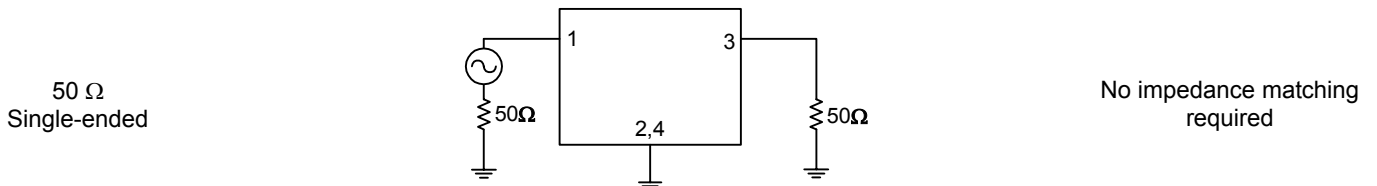
Operating Temperature Range: ⁽²⁾ -30 to +80 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	836.5	-	MHz
Maximum Insertion Loss				
824 - 849 MHz	-	2.4	3.5	dB
825 - 848 MHz	-	2.2	3.0	
Absolute Attenuation				
DC - 760 MHz	35	37	-	dB
760 - 790 MHz	30	33	-	dB
790 - 804 MHz	35	38	-	dB
869 - 894 MHz	38	42	-	dB
894 - 1080 MHz	35	37	-	dB
1080 - 2600 MHz	32	35	-	dB
Amplitude Ripple				
824 - 849 MHz	-	0.8	1.8	dB p-p
Input/Output Return Loss				
824 - 849 MHz	9	12	-	dB
Source Impedance: ⁽⁴⁾	-	50	-	Ω
Load Impedance: ⁽⁴⁾	-	50	-	Ω

Notes:

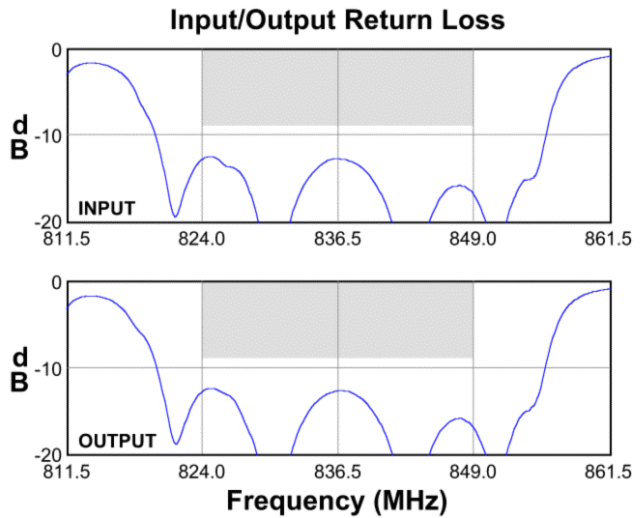
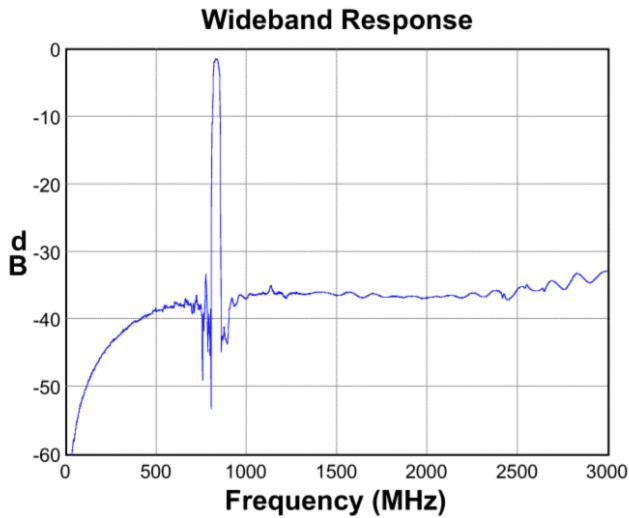
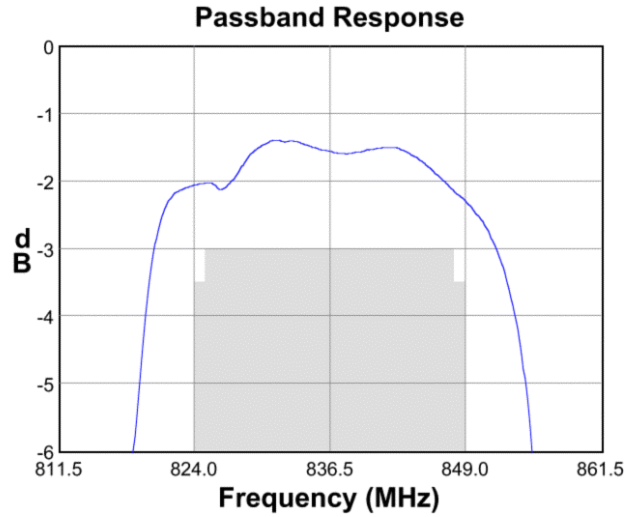
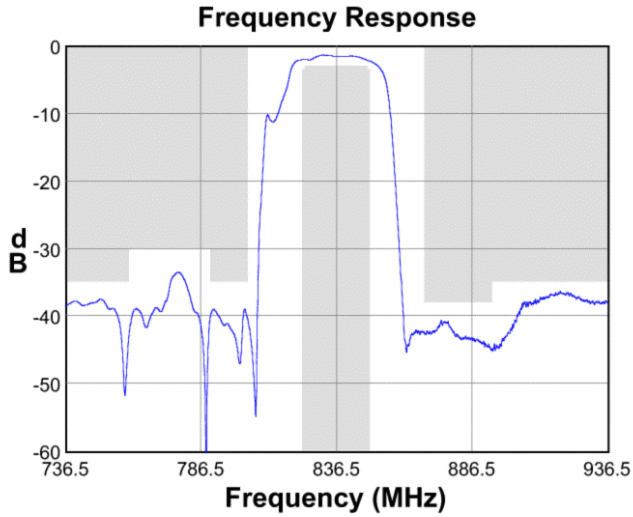
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2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
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Test Circuit:

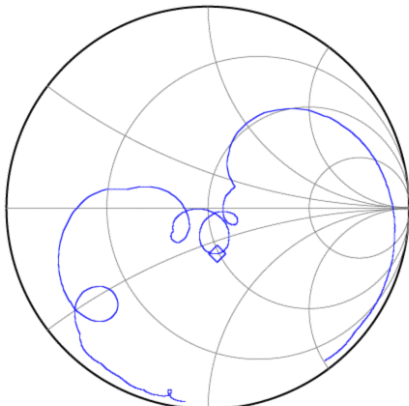


Data Sheet

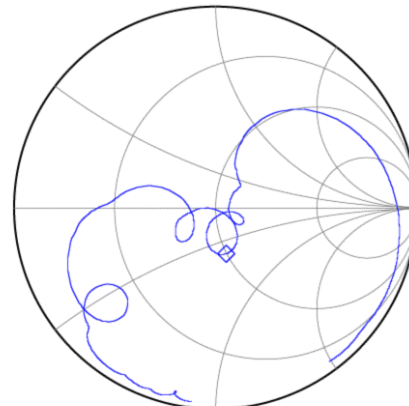
Typical Performance (at +25°C)



Input Smith Chart



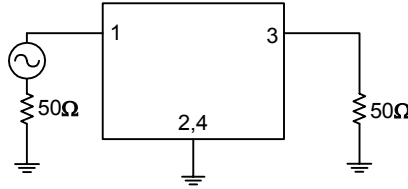
Output Smith Chart



Data Sheet

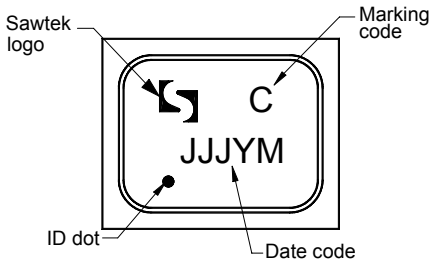
Matching Schematics

50 Ω
Single-ended

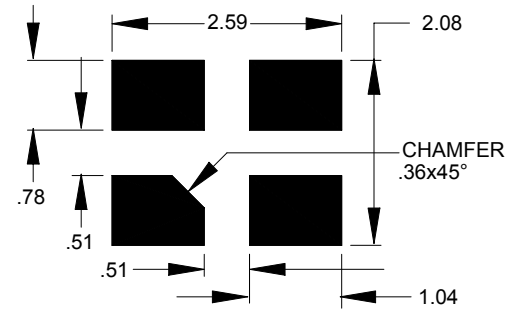


No impedance matching required

Marking PCB Footprint

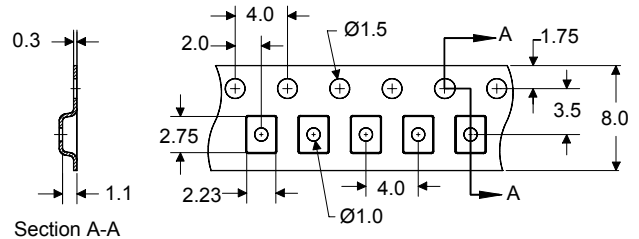
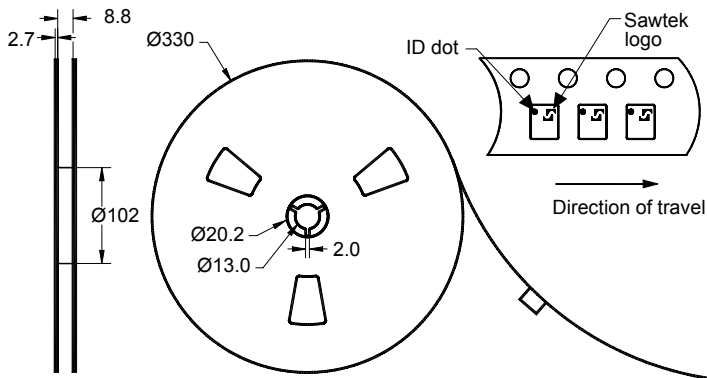


The date code consists of: JJJ = Julian day,
Y = last digit of year, M = manufacturing site code



This footprint represents a recommendation only
Dimensions shown are nominal in millimeters

Tape and Reel




Dimensions shown are nominal in millimeters
Packaging quantity: 10000 units/reel

Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	-30	+80	°C
Storage Temperature Range	T _{stg}	-40	+85	°C

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[Other Technical Information](#)

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