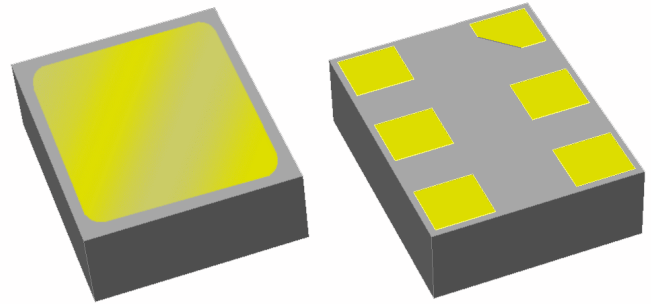


**Data Sheet**

**Features**

- For EGSM applications, Tx
- Usable bandwidth of 35 MHz
- High attenuation
- Balanced input
- Single-ended output
- Superior amplitude and phase balance
- Ceramic Surface Mount Package (SMP)
- Small size

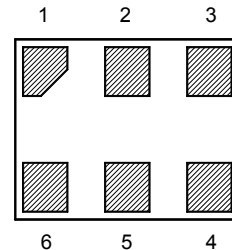
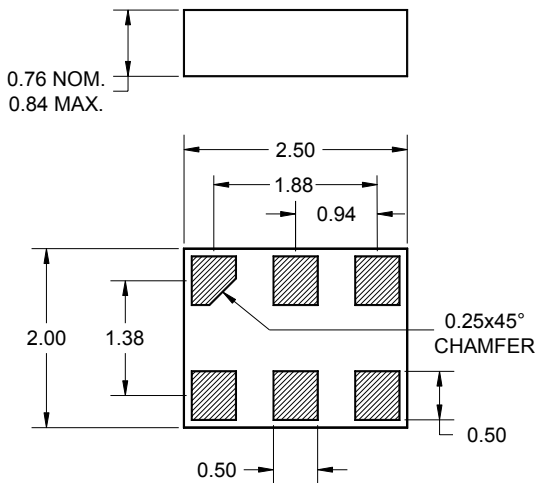


**Package**

Surface Mount 2.50 x 2.00 x 0.76 mm

**Pin Configuration**

Bottom View



Pin No.	Description
2	Output, Single-ended
4,6	Input, Balanced
1,3,5	Case Ground

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

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

# Data Sheet

## Electrical Specifications <sup>(1)</sup>

Operating Temperature Range: <sup>(2)</sup> -10 to +80 °C

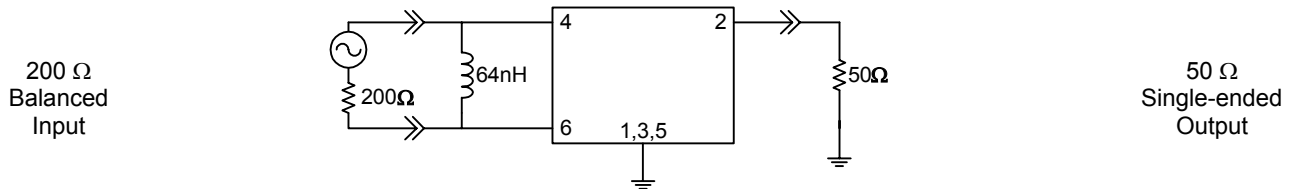
Parameter <sup>(3)</sup>	Minimum	Typical	Maximum	Unit
<b>Center Frequency</b>	-	897.5	-	MHz
<b>Maximum Insertion Loss</b> 880 - 915 MHz	-	2.2	3.2	dB
<b>Absolute Attenuation <sup>(4)</sup></b>				
DC - 850 MHz	45	54	-	dB
850 - 869 MHz	15	33	-	dB
935 - 960 MHz	20	28	-	dB
960 - 1850 MHz	40	48	-	dB
1850 - 3660 MHz	35	41	-	dB
3660 - 6000 MHz	25	33	-	dB
<b>Amplitude Ripple</b> 880 - 915 MHz	-	1.1	1.8	dB p-p
<b>Amplitude Balance (<math> S_{31}/S_{21} </math>)</b> 880 - 915 MHz	-1.5	1.0	1.5	dB
<b>Phase Balance <math>\phi(S_{31}) - \phi(S_{21})</math></b> 880 - 915 MHz	170	180	190	deg
<b>Input/Output Return Loss</b> 880 - 915 MHz	8.5	9.3	-	dB
<b>Optimal Source Impedance <sup>(4)</sup></b>	-	200    64nH	-	$\Omega$
<b>Optimal Load Impedance <sup>(4)</sup></b>	-	50	-	$\Omega$

**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 complex conjugate of the unmatched filter's impedance resulting in maximum power transfer

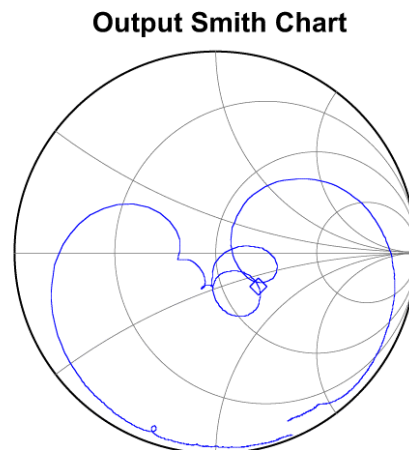
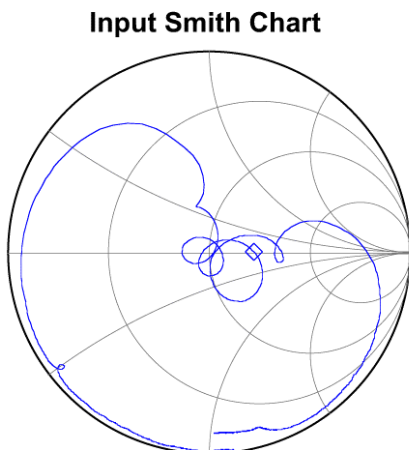
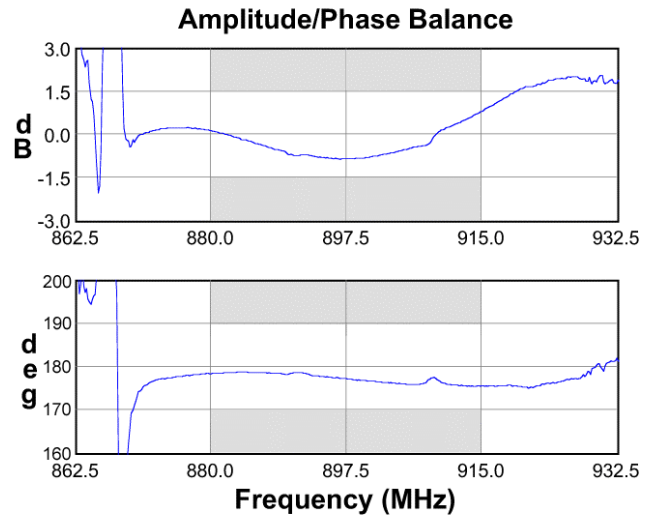
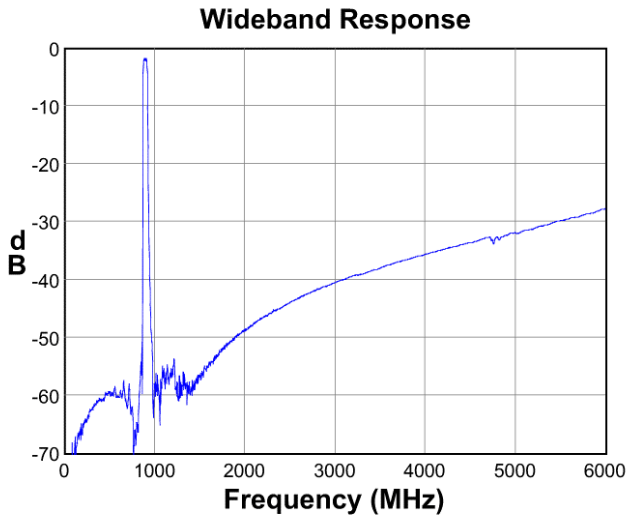
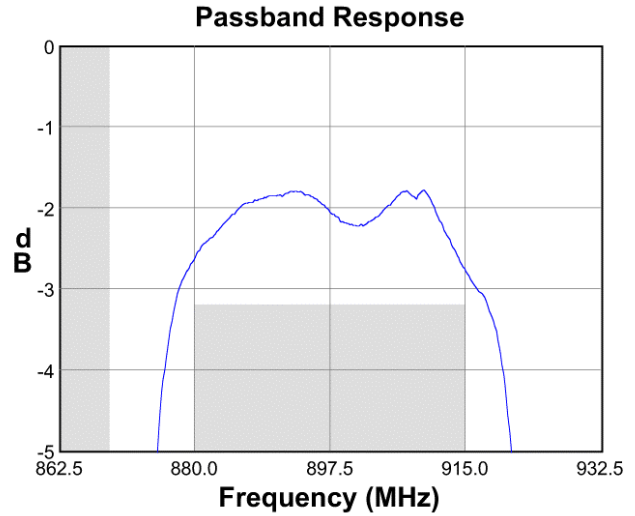
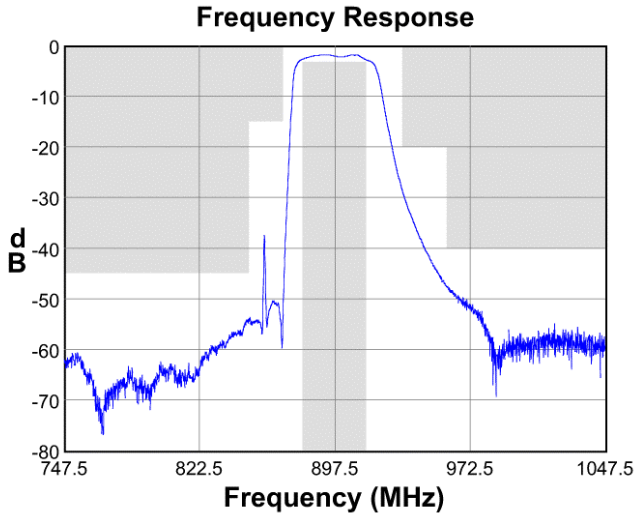
**Test Circuit:**

Actual matching values may vary due to PCB layout and parasitics



**Data Sheet**

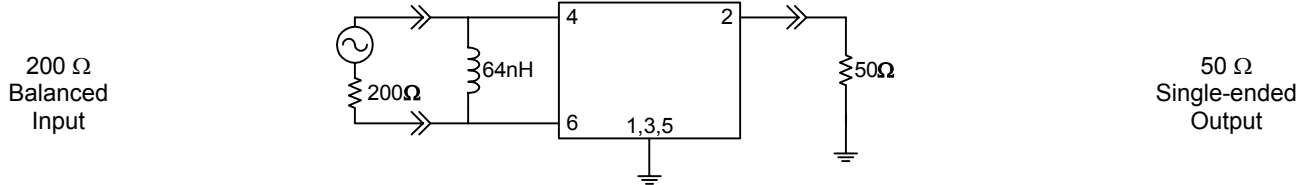
**Typical Performance (at +25°C)**



**Data Sheet**

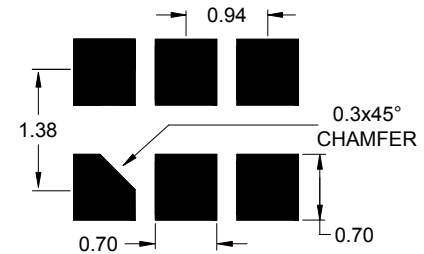
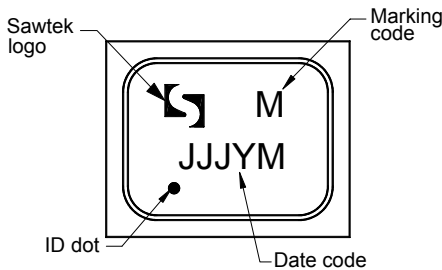
**Matching Schematic**

Actual matching values may vary due to PCB layout and parasitics



**Marking**

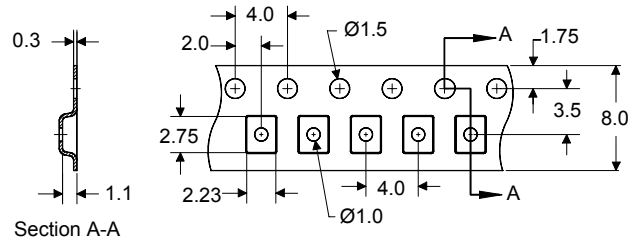
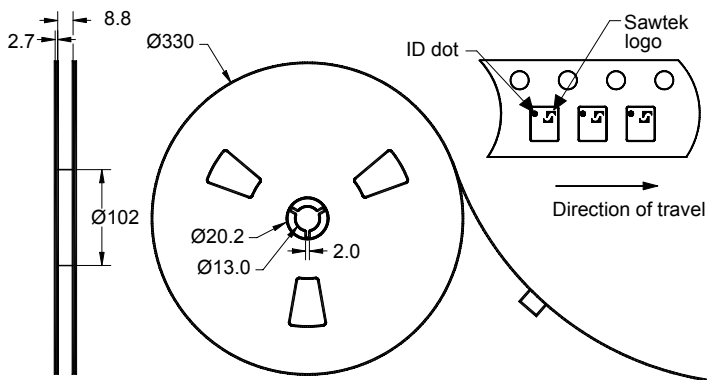
**PCB Footprint**



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	-10	+80	°C
Storage Temperature Range	T <sub>stg</sub>	-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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