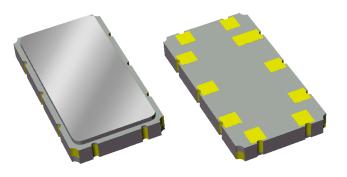


Features

- For multiple applications
- Usable bandwidth 28 MHz
- High attenuation
- Balanced or single-ended operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free (p)

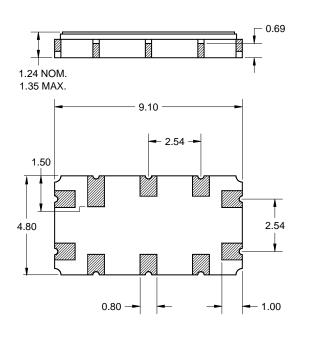
Package Surface Mount 9.10 x 4.80 x 1.24 mm

SMP-35C



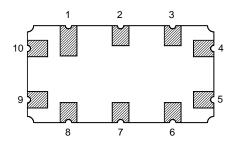
Pin Configuration

Bottom View



Dimensions shown are nominal in millimeters All tolerances are ± 0.15 mm except overall length and width ± 0.10 mm

Body: *Al*₂O₃ ceramic Lid: *Kovar, Ni* plated Terminations: *Au* plating 0.5 - 1.0μm, over a 2 - 6μm *Ni* plating



Pin No. Balanced	Description
9	Input + Input - Output + Output -
10	Input -
4	Output +
5	Output -
1,2,3,6,7,8	Case Ground

Pin No. Single-Ended	Description
9	Input
10	Input Ground
4	Output
5	Output Ground
1,2,3,6,7,8	Case Ground

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Electrical Specifications⁽¹⁾

Operating Temperature Range: ⁽²⁾

-40 to +85 °C

Parameter ⁽³⁾	Minimum	Typical ⁽⁵⁾	Maximum	Unit
Center Frequency	-	140	-	MHz
Insertion Loss @ Center Frequency	-	18.0	20	dB
Amplitude Variation				
126 – 154 MHz	-	0.6	1.2	dB p-p
Phase Linearity				
129 – 151 MHz	-	3.0	6	⁰ p-p
126 – 154 MHz	-	3.5	7	⁰ p-p
Average Group Delay				
126 – 154 MHz	0.55	0.60	0.65	μs
Input/Output Return Loss				
126 – 154 MHz	10	13	-	dB
Relative Attenuation ⁽⁴⁾				
10 – 112 MHz	38	41	-	dB
168 – 198 MHz	35	42	-	dB
198 – 225 MHz	40	47	-	dB
225 – 250 MHz	35	41	-	dB
Triple Transit Suppression	45	50	-	dB
Source Impedance (balanced or single-ended) ⁽⁶⁾	-	50	-	Ω
Load Impedance (balanced or single-ended) ⁽⁶⁾	-	50	-	Ω

Notes:

- 1. All specifications are based on the TriQuint matching schematics shown on page 5
- 2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature

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3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances

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- 4. Relative to insertion loss at center frequency
- 5. Typical values are based on average measurements at room temperature
- 6. This is the optimum impedance in order to achieve the performance shown



Electrical Specifications⁽¹⁾

Operating Temperature Range: ⁽²⁾

-20 to +85 °C

Parameter ⁽³⁾	Minimum	Typical ⁽⁵⁾	Maximum	Unit
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129 – 151 MHz	-	3.0	5	° p-p
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Notes:

- 1. All specifications are based on the TriQuint matching schematics shown on page 5
- 2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature

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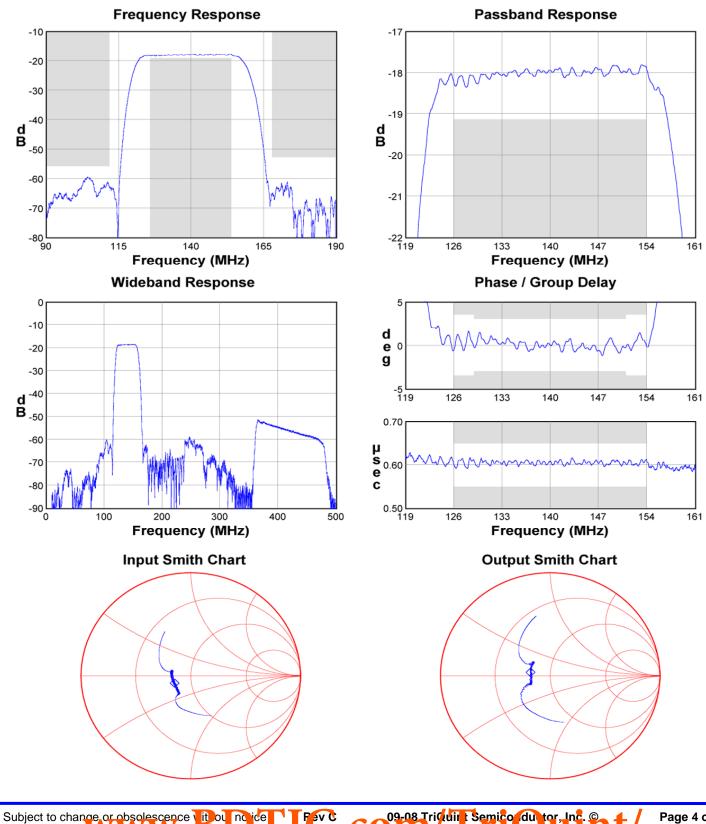
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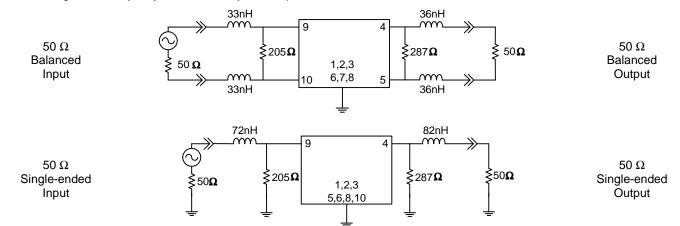
Typical Performance (at room temperature)



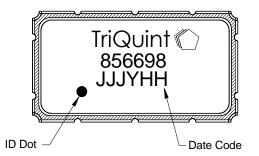


Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

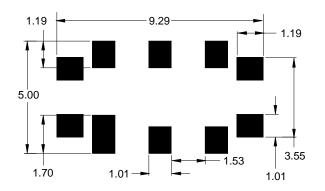


Marking

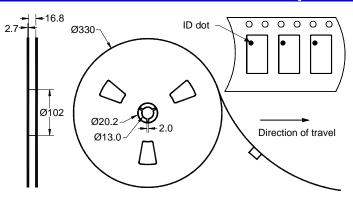


The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

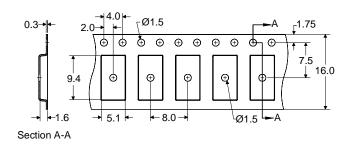




This footprint represents a recommendation only Dimensions shown are nominal in millimeters



Tape and Reel



Dimensions shown are nominal in millimeters Packaging quantity: 4000 units/reel

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TriQuint 🔇 SEMICONDUCTOR **Data Sheet**

Part Number 856698 140 MHz SAW Filter

Maximum Ratings					
Parameter	Symbol	Minimum	Maximum	Unit	
Operating Temperature Range	Т	-40	+85	°C	
Storage Temperature Range	T _{stg}	-55	+125	°C	
Pyroelectric Voltage	V _{Pyro}	-	50	mV p-p	
Input Power	P _{in}	-	+10	dBm	

Important Notes

Warnings

- Electrostatic Sensitive Device (ESD) $\overleftarrow{\nabla}$
- Avoid ultrasonic exposure

RoHS Compliance

This product complies with EU directive 2002/95/EC (RoHS) (Pb)

Solderability

Compatible with JEDEC J-STD-020C Pb-free process, 260℃ peak reflow temperature (see soldering profile)

Links to Additional Technical Information

PCB Layout Tips

Qualification Flowchart

Soldering Profile

S-Parameters

RoHS Information

Other Technical Information

TriQuint's liability is limited only to the Surface Acoustic Wave (SAW) component(s) described in this data sheet. TriQuint does not accept any liability for applications, processes, circuits or assemblies, which are implemented using any TriQuint component described in this data sheet.

Contact Information

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Phone: +1 (407) 886-8860 Fax: +1 (407) 886-7061 Email: info-product@tqs.com Web: www.triguint.com

Or contact one of our worldwide Network of sales offices, Representatives or distributors

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