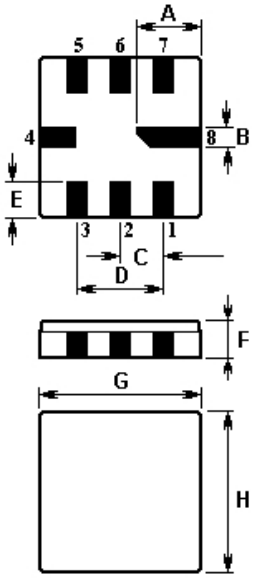
V.TORCH

The **VSF433155** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic **QCC8C** case designed to provide front-end selectivity in **433.920** MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen.

1. Package Dimension (QCC8C)



Pin	Connection
1	Input Ground
2	Input
5	Output
6	Output Ground
3, 7	to be Grounded
4, 8	Case Ground

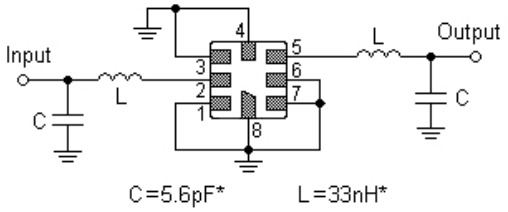
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

2. Marking

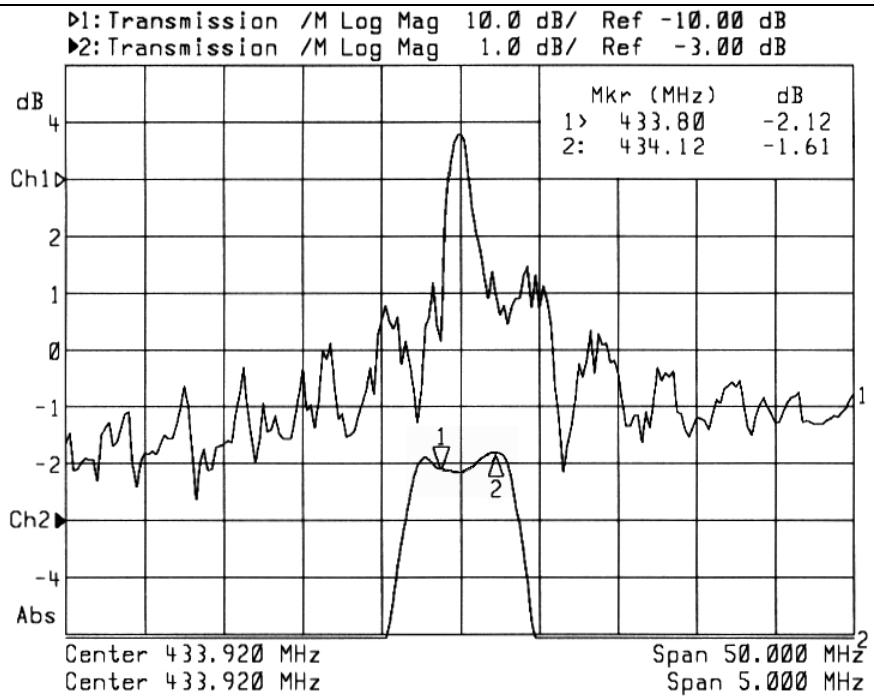
VSF433155

Laser Marking

3. Test Circuit



4. Typical Frequency Response


▷1: Transmission /M Log Mag 10.0 dB/ Ref -10.00 dB
▶2: Transmission /M Log Mag 1.0 dB/ Ref -3.00 dB
Mkr (MHz) dB
1› 433.80 -2.12
2: 434.12 -1.61
dB
4
Ch1▷
2
1
0
-1
-2
Ch2▶
-4
Abs
Center 433.920 MHz
Center 433.920 MHz
Span 50.000 MHz
Span 5.000 MHz

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5. Performance

5-1. Maximum Ratings

Rating		Value	Unit
Input Power Level	P	10	dBm
DC Voltage	V_{DC}	0	V
Operable Temperature Range	T_A	-45 to +120	℃
Storage Temperature Range	T_{stg}	-45 to +120	℃

5-2. Electronic Characteristics

Reference temperature: T_A = -45 …. +95 °C

Characteristic		Minimum	Typical	Maximum	Unit
Center Frequency (center frequency between 3dB points)	f_C		433.920		MHz
Insertion Loss 433.80 …. 434.12 MHz	*IL*	--	2.0	4.0	dB
3dB Pass bandwidth (relative to *IL*)	BW_3	670	730	790	kHz
Passband (relative to *IL*) 433.76 …. 434.08 MHz 433.74 …. 434.10 MHz 433.68 …. 434.16 MHz		 -- -- --	 1.0 1.0 1.5	 2.0 3.0 6.0	 dB dB dB
Relative Attenuation (relative to *IL*) 10.00 …. 414.00 MHz 414.00 …. 428.00 MHz 428.00 …. 432.84 MHz 434.92 …. 442.00 MHz 442.00 …. 550.00 MHz 550.00….1000.00 MHz		 45 35 15 10 35 45	 50 40 20 15 40 50	 -- -- -- -- -- --	 dB dB dB dB dB dB

ⓘCAUTION: Electrostatic Sensitive Device. Observe precautions for handling!