

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

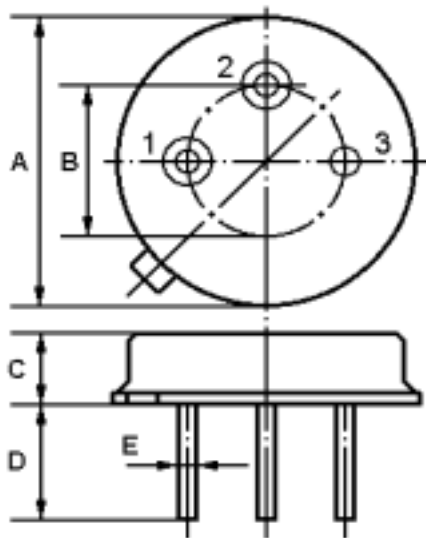
Spec no: TO39F-04392-R60-NJ-A

1. Features

Low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a low-profile metal TO-39 case designed to provide front-end selectivity in 439.250 MHz receivers. Receiver designs using this filter include superhet with 10.7 MHz or 500 kHz IF, direct conversion and superregen.

2. Type : TO39

3. Product Dimension



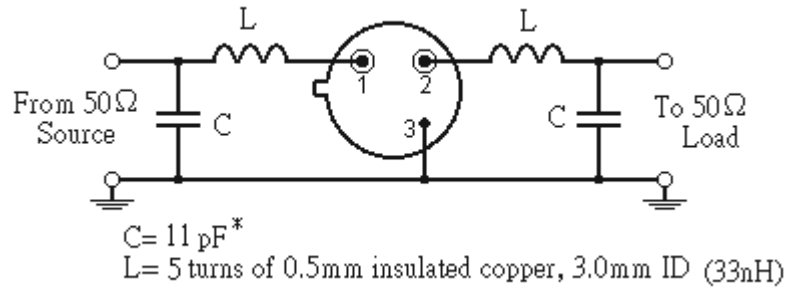
Pin	Configuration
1	Input / Output
2	Output / Input
3	Case Ground

Sign	Data (unit: mm)	Sign	Data(unit: mm)
A	9.15±0.20	D	3±0.20
B	5.08±0.20	E	0.45±0.10
C	3.30±0.20		

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4. Test Circuit



5. Performance

5-1. Maximum Ratings

Rating		Value	Units
CW RF Power Dissipation	P	+10	dBm
DC Voltage Between Any Two Pins	V_{DC}	± 30	V
Storage Temperature Range	T_{stg}	-40 to +85	
Operating Temperature Range	T_A	-40 to +85	

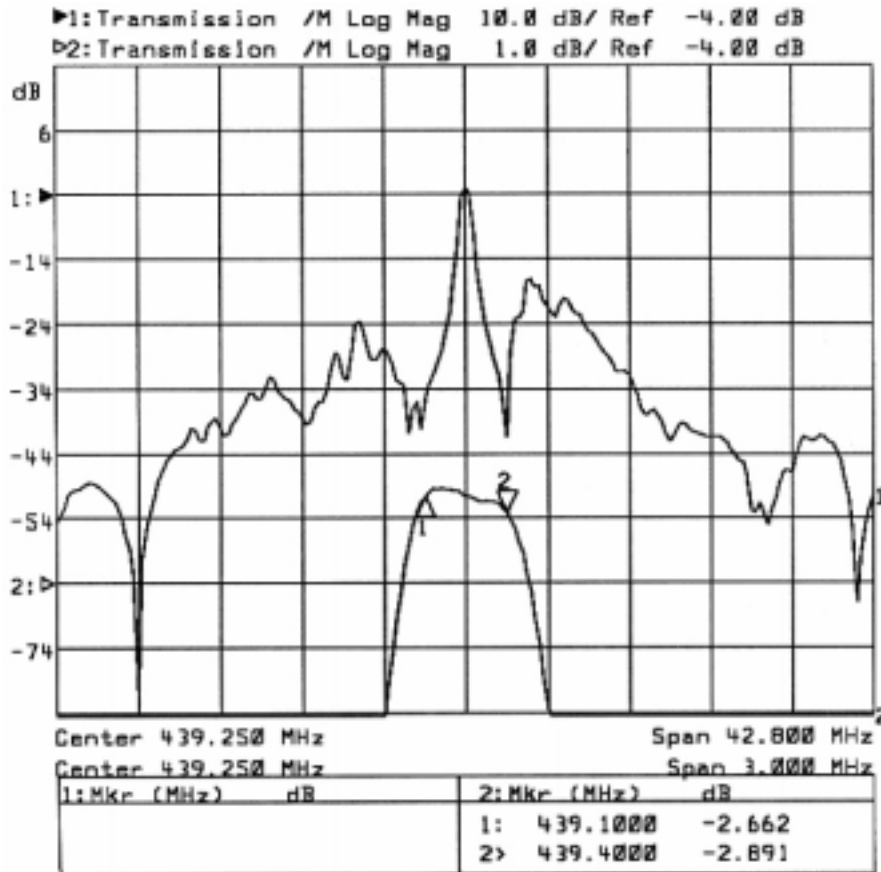
5-2. Electronic Characteristics

Item		Min.	Typ.	Max.	Unit
Center Frequency	f_c		439.250		MHz
(center frequency between 3dB points)					
Insertion Loss	IL	--	3.0	5.0	dB
3dB Bandwidth	BW_3		600	900	kHz
Rejection	at $f_c - 21.4\text{MHz}$ (Image)	40	50	--	dB
	at $f_c - 10.7\text{MHz}$ (LO)	20	30	--	
	Ultimate	--	60	--	
Temperature	Turnover Temperature	T_o	25	55	
	Turnover Frequency	f_o		f_c	MHz
	Frequency Temperature Coefficient	FTC		0.032	ppm/ $^{\circ}\text{C}$
Frequency Aging	Absolute Value during the First Year	$ fA $	10		ppm/yr

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6. Frequency Response



7. Notice

1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR ≤ 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
2. Frequency aging is the change in f_c with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
3. Turnover temperature, T_0 , is the temperature of maximum (or turnover) frequency, f_0 . The nominal frequency at any case temperature, T_C , may be calculated from:

$$f = f_0 [1 - FTC (T_0 - T_C)^2].$$
4. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.