

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

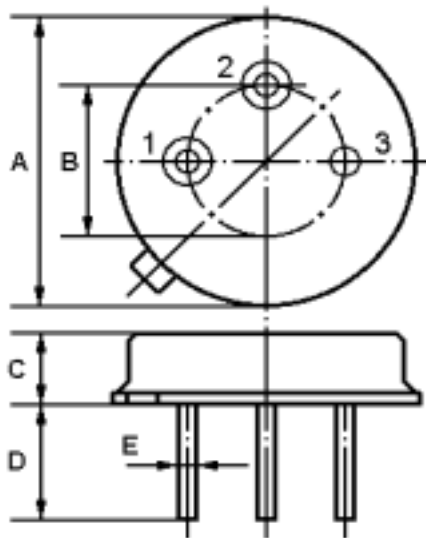
Spec no: TO39F-04512-R48-NJ-A

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 451.250 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



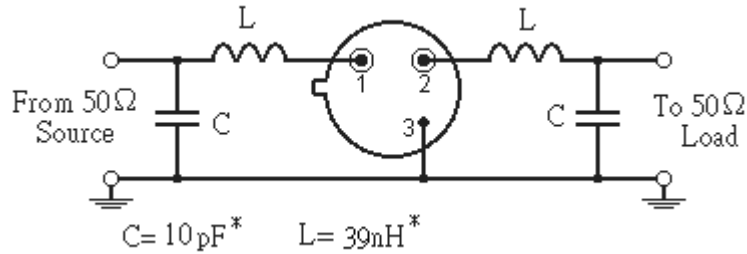
Pin	Configuration
1	Input / Output
2	Output / Input
3	Case Ground

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
RF Power Dissipation	P	+16	dBm
DC Voltage Between Any Two Pins	V_{DC}	30	V
Storage Temperature Range	T_{stg}	-55 to +125	
Operating Temperature Range	T_A	-30 to +85	

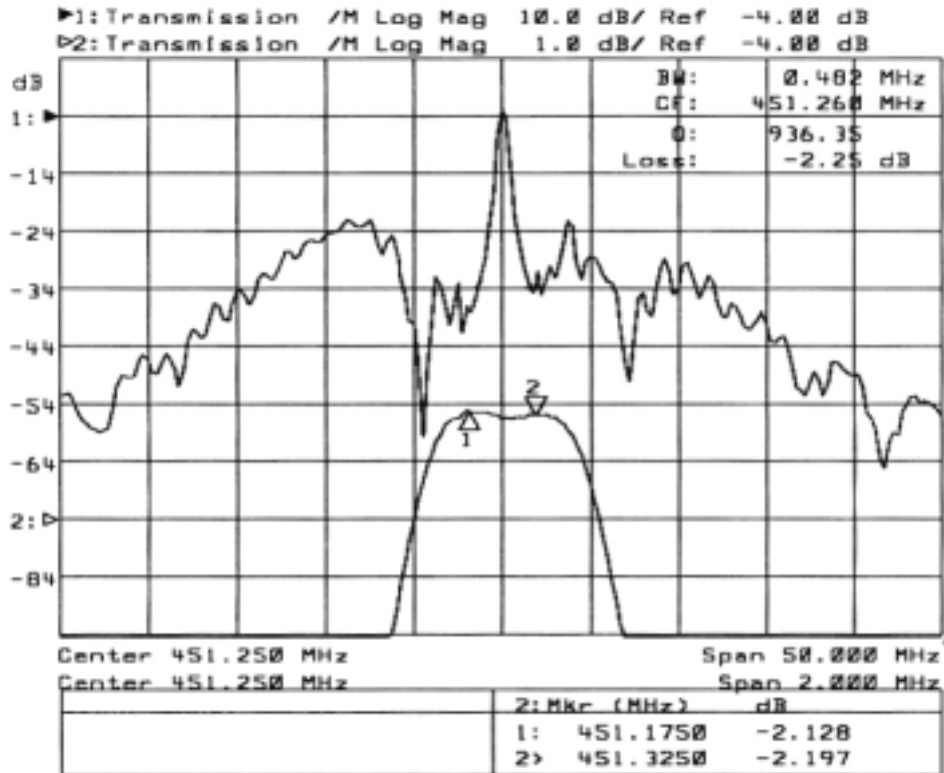
5-2. Electronic Characteristics

Item		Min	Typ	Max	Unit
Center Frequency	f_c		451.250		MHz
3dB Bandwidth	BW_3		480		kHz
Insertion Loss ($f_c \pm 75 \text{ kHz}$)	IL	--	2.2	4.0	dB
Passband Ripple ($f_c \pm 75 \text{ kHz}$)	$\Delta\alpha$			1.5	dB
Rejection	$f_c \pm 1.50 \text{ MHz}$	5		--	dB
	$f_c \pm 6.00 \text{ MHz}$	20		--	
	$f_c \pm 50.0 \text{ MHz}$		50	--	

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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 \leq 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.