

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

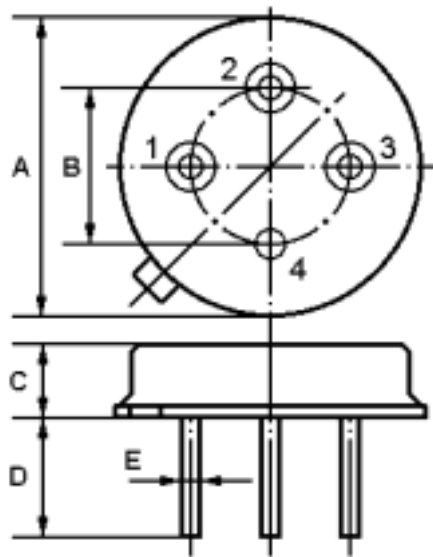
Spec no: TO39BF-04795-015-NJ-A

1. Features

For 2.4Ghz wireless surveillance/baby monitor application.

2. Type : TO39B

3. Product Dimension



Pin	Configuration
1	Input
2	Output
3	Output
4	Ground

Sign	Data (unit: mm)	Sign	Data(unit: mm)
A	9.35±0.20	D	3±0.20
B	5.08±0.20	E	0.45±0.20
C	3.30±0.20		

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

4. Performance

4-1. Maximum Ratings

Rating		Value	Units
AC Voltage Between Any Two Pins	V_{PP}	5	V
DC Voltage Between Any Two Pins	V_{DC}	0	V
Storage temperature range	T_{stg}	-40 to +85	
Operable temperature range	T_A	-25 to +85	

4-2. Electronic Characteristics

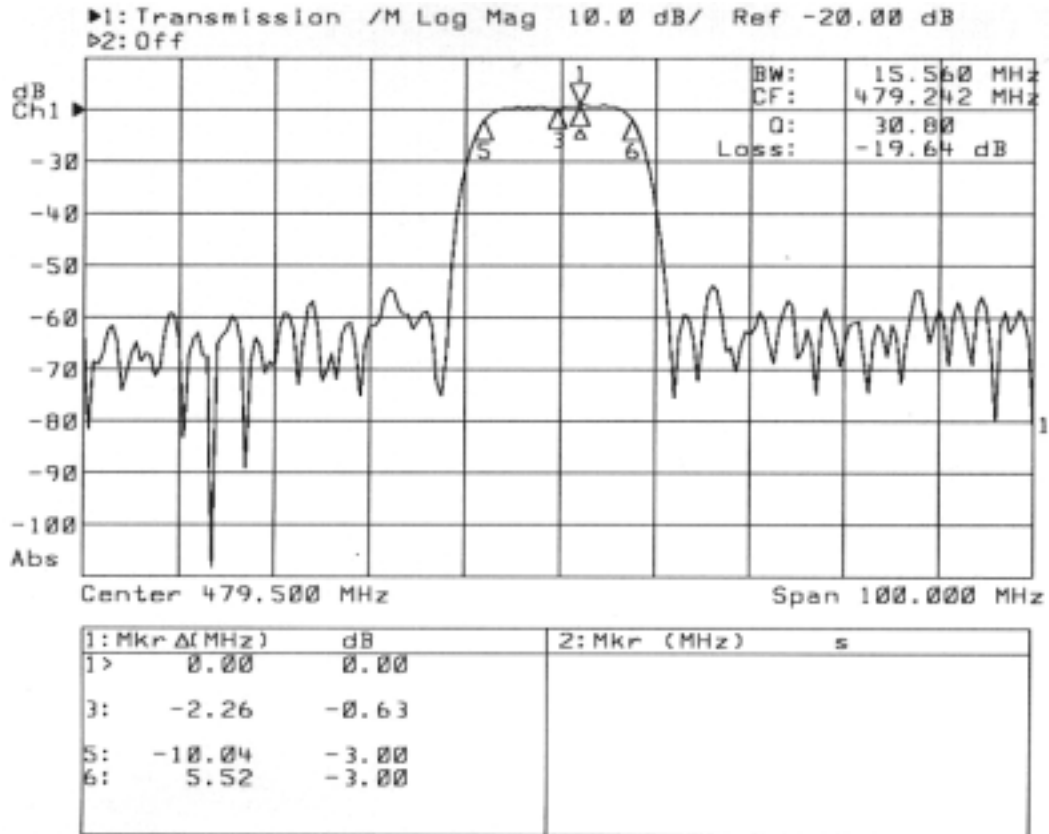
Reference temperature: $T_A = 25$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

Item		Min.	Typ.	Max.	Units
Center Frequency	f_c	478.50	479.50	480.50	MHz
Insertion attenuation 479.50 MHz (Reference level for the following data)	α	--	21.8	24.0	dB
Pass bandwidth $\alpha_{rel} \leq 3\text{dB}$	$B_{3\text{dB}}$	--	15.0	--	MHz
Relative attenuation	α_{rel}				
	472.00 MHz	--	3.1	5.1	dB
	487.00 MHz	--	3.0	5.0	dB
Lower sidelobe	430.00 ... 458.00 MHz	34.0	48.0	--	dB
Upper sidelobe	501.00 ... 530.00 MHz	34.0	45.0	--	dB
Reflected wave signal suppression 0.15 μ s ... 2.0 μ s after main pulse		40.0	46.0	--	dB
Amplitude ripple (p-p)					
	475.00 ... 484.00 MHz $\Delta \alpha$	--	0.5	1.0	dB
Group delay ripple (p-p)					
	472.00 ... 487.00 MHz $\Delta \tau$	--	10	15	ns
Impedance at 479.50MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		--	180 3.8	--	Ω pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		--	140 3.3	--	Ω pF
Temperature coefficient of frequency	TC_f	--	-86	--	ppm/K

SPECIFICATION OF SAW FILTER

YOKETAN CORP.

5. Frequency Response



6. 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 $+65^\circ\text{C}$ or less. Aging may exceed the specification for prolonged temperatures above $+65^\circ\text{C}$. 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.