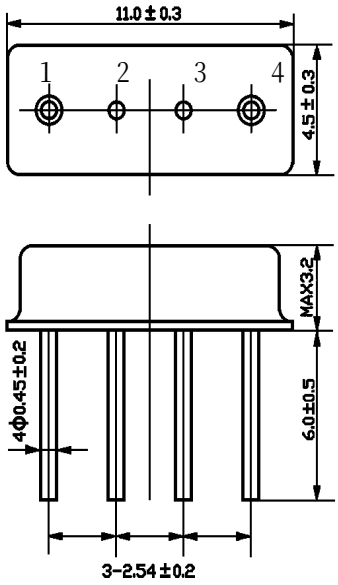
FT

FTF433A

1.Package Dimension

(F-11)



NO	Function
1	Input
2	Ground
3	Ground
4	Output

Unit:mm

2.Marking

FTF433A

2.1.Colour: Black or Blue

2.2Center Frequency (MHz): 433.3

3.Performance

3.1 Absolute Maximum Ratings

Rating	Value	Units
CW RF Power	+0	dBm
DC Voltage between	±30	VDC
Case Temperature	-35 to +85	℃

3.2 Electrical Characteristics

Characteristic		Sy	Minimum	Typical	Maximum	Units
Center Frequency(+25℃)	Absolute Frequency	f_c	433.225		433.375	MHz
	Tolerance from 433.3MHz	Δf_c		±75		KHz
Insertion Loss		IL		3.5	5.0	dB
3dB Bandwidth		BW_3		600		KHz
Temperature Stability	Turnover Temperature	T_0	15	25	35	℃
	Turnover Frequency	f_o		fc+2.7		KHz
	Frequency	FTC		0.032		ppm/℃
Frequency Aging	Absolute Value	|fA|		≤±10		ppm/yr
DC Insulation Resistance between Any			1.0			MΩ
Rejection	at f_c-21.4MHz(Image)		40	50		dB
	at f_c-10.7MHz(LO)		15	30		
	Ultimate			80		

☺ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling

NOTES:

1.Frequency aging is the change in f_c with time and is specified at +65℃ or less. Aging may exceed the specification for prolonged temperatures above +65℃. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.

2.The frequency f_c id the frequency of minimum IL with the resonator in the specified test fixture in a 50 Ω test system with VSWR ≤ 1.2 : 1. Typically, $f_{oscillator}$ or $f_{transmitter}$ is less than the resonator f_c.

3.Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.

4.Unless noted otherwise , case temperature T_c=+25℃±2℃.

5.The design, manufacturing process, and specifications of this device are subject to change without notice.

6.Derived mathematically from one or more of the following directly measured parameters: f_c, IL, 3 dB bandwidth, f_c versus T_c , and C_0.
7.Turnover temperature, T_0, is the temperature of maximum (or turnover) frequency, f_0, The nominal center frequency at any case temperature , TC, may be calculated from :$f = f_0 [1-FTC (T_0-T_C)^2]$ .Typically, oscillator $T_0$is 20° less than the specified resonator T_o.
8.This equivalent RLC model approximates resonator performance near the resonant frequency and is provided for reference only . The capacitance C_0 is the measured static (nonmotional) capacitance between either pin 1 and ground or pin 4 and ground .The measurement includes case parasitic capacitance

4.Reliability

4.1 Mechanical Shock: The components shall remain within the electrical specifications after 1000 shocks, acceleration 392m/s^2,duration 6 milliseconds.

4.2 Vibration Fatigue: The components shall remain within the electrical specifications after loaded vibration at 20 Hz , amplitude 1.5mm , for 2 hours.

4.3 Terminal Strength: The components shall remain within the electrical specifications after pulled 2 Kgs weight for 10 seconds towards an axis of each terminal.

4.4 High Temperature Storage: The components shall remain within the electrical specifications after being kept at the 85℃±2℃for 48 hours, then kept at room temperature for 2 hours.

4.5 Low Temperature Storage: The components shall remain within the electrical specifications after being kept at the -25℃±2℃for 48 hours ,then kept room temperature for 2 hours.

4.6 Temperature Cycle: The components shall remain within the electrical specifications after 5 cycles of high and low temperature testing(one cycle: 80℃for 30 minutes →25℃for 5 minutes → -25℃for 30 minutes) than kept at room temperature for 2 hours.

4.7 Solder-heat Resistance : The components shall remain within the electrical specifications after dipped in the solder at 260℃for 10±1seconds,then kept at room temperature for 2 hours .(Terminal must be dipped leaving 1.5 mm from the case).

4.8 Solder ability: Solder ability of terminal shall be kept at more than 80% after dipped in the solder flux at 230℃ ± 5℃for 5±1 seconds.

5. Remarks

5.1Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage .

5.2Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

5.3Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.