Sichuan Institute of Piezoelectric and Acoustooptic Technology

- Ideal for European 433.92MHz transmitters
- Low loss,High Q factor
- Quartz stability
- To—39 case

UE433A

433.92MHz SAW Resonator

The UE433.92 is a true one-port ,surface-acoustic-wave(SAW) resonator in a low profile TO-39 case .It provides reliable, fundamental-mode, quartz frequency stabilization of fixed-frequency transmitters operating at 433.92MHz. The UE433.92 is designed specifically for remote-control and wireless security transmitters operating in Europe under ETSII-ETS 300 200 and in Germany under FTZ 17 TR 2100

Absolute Maximum Rating

Rating	Value
CW RF power Dissipation	+13dBm
DC Voltage between any 2 pins	±30VDC
Case Temperature	-40 to +85℃

Electrical Characteristic

Characteristic		Sym	Unit	Minimum	Typical	Maximum
Center Frequency		F_0	MHz	433.845	433.92	433.995
Insertion Loss		IL	dB		1.5	2.0
Quality Factor	Unloaded Q	Q_U			11,000	
	50Ω loaded Q	Q_L			2,000	
Temperature Stability	Turnover Temperature	T_0	℃	28	43	58
	Turnover Frequency	F_0	KHz		F_0+2.7	
	Freq.Temp.Coefficient	FTC	ppm/℃^{2}		0.032	
Frequency Aging			ppm/yr		<±10	
DC Insulation Resistance between any 2 pins			MΩ	1.0		
RF Equivalent RLC Model	Motional resistance	R_m	Ω		15	19
	Motional Inductance	L_m	μH		67.0144	
	Motional Capacitance	C_m	fF		2.01212	
	Shunt Static Cap	C_0	pF	1.7	2.1	2.3
	Transducer Static Cap.	C_p	pF		1.8	

NOTE:

1. Test temperature:25±2℃.
2. In test the shunt inductance is tuned for parallel resonance with C_0 at f_c.
3. This part is Electrostatic Discharge Sensitive and may be damaged by improper handing

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UE433.92

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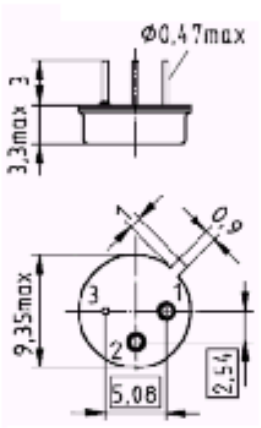
Package

Metal package **TO39**

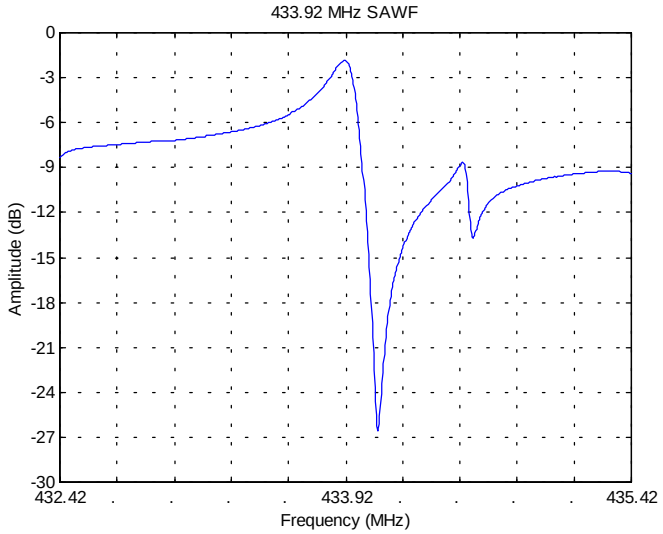


Pin configuration

1	Input 1
2	Input 2
3	Ground

Dimensions in mm, approx. weight 1.0 g

Frequency response



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