AEC®

Abundance Enterprise Co.

PRODUCT SPECIFICATION

SAW RESONATOR

AEC PART NUMBER / SPEC. NO SR433.92-75-DCC6C

CUSTOMER: Schukat electronic Vertriebs GmbH

RoHS Compliant

This model is ROHS/PB-free compliance according to the ROHS directive 2002/95/EC

Customer's Name	**Schukat electronic Vertriebs GmbH**
Production Name	**SAW RESONATOR**
Frequency	**433.92MHz**
Model No	**SR433.92-75-DCC6C**
Issue Date	**15th Oct, 2013**

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Prepared	Inspection	Approved
Nathan	*Andy*	*Henkie*

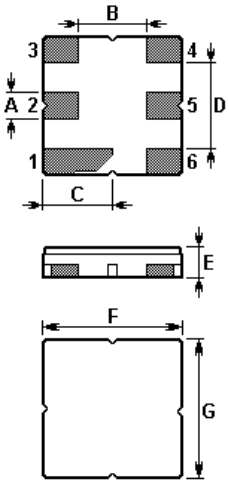
1. GENERAL PROVISION

1-1 Production Name: SMD Saw Resonator

1-2 Holder Type: SR433.92-75-DCC6C

1-3 This specification relates to the SAW resonator to be supplied by Abundance Enterprise Co. (AEC).

2. DIMENSION

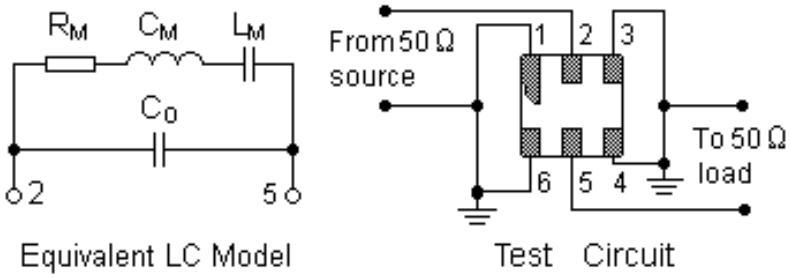


Pin	Configuration
2	Input / Output
5	Output / Input
1,3,4,6	Ground

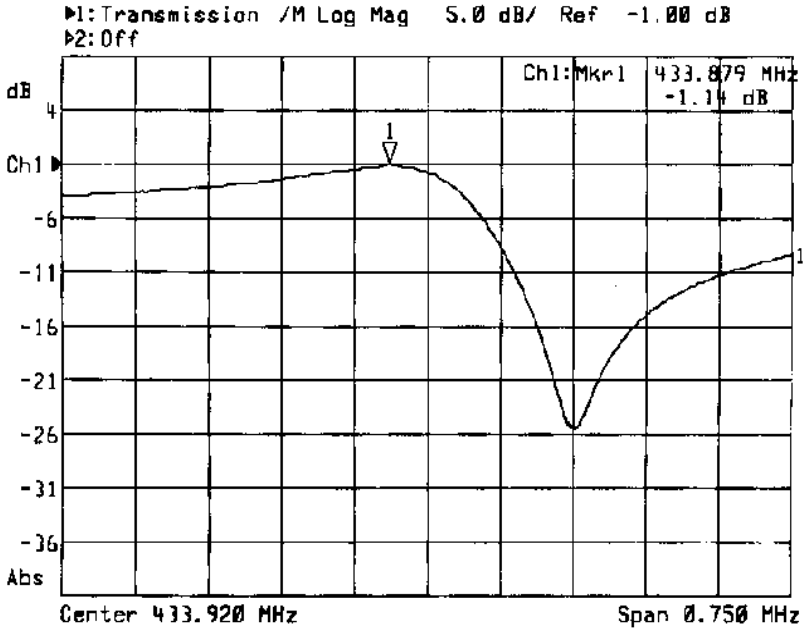
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	0.6	E	1.1
B	1.5	F	3.0
C	1.5	G	3.0

AEC® Abundance Enterprise Co.		NO.	Revised DATE	MODIFY CONTENTS		
		1	2006.1.4	NEW UPDATE		
DIMENTION	mm					
SCALE		MODEL		SAW Resonator		
TOLERANCE	±0.2	PART NAME		SRM433.92-75-DCC6C		
DRAWING NO. **433.92-SRM**				APPV'D BY Henkie	CHECK BY Andy	DRAWN BY Nathan

3. Equivalent LC Model and Test Circuit



4. FREQUENCY RESPONSE



5. ELECTRICAL SPECIFICATION

5-1.Maximum Ratings

Rating		Value	Unit
CW RF Power Dissipation	P	0	dBm
DC Voltage Between Terminals	V_{DC}	±30	V
Storage Temperature Range	T_{stg}	-40 to +85	℃
Operating Temperature Range	T_A	-10 to +60	℃

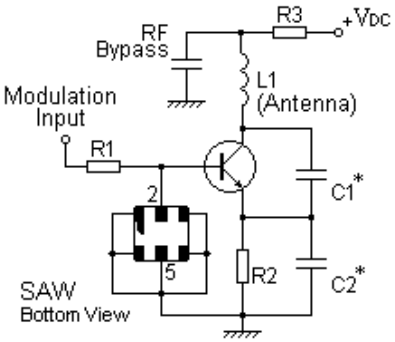
5-2.Electronic Characteristics

Characteristic		Sym	Minimum	Typical	Maximum	Unit
Center Frequency (+25℃)	Absolute Frequency	f_C	433.845		433.995	MHz
	Tolerance from 433.920 MHz	Δf_C		±75		kHz
Insertion Loss		I_L		1.6	2.0	dB
Quality Factor	Unloaded Q	Q_U		10,200		
	50 Ω Loaded Q	Q_L		1,700		
Temperature Stability	Turnover Temperature	T_0	25		55	℃
	Turnover Frequency	f_0		f_C		kHz
	Frequency Temperature Coefficient	FTC		0.032		ppm/℃^{2}
Frequency Aging	Absolute Value during the First Year	|fA|		≤10		ppm/yr
DC Insulation Resistance Between Any Two Terminals			1.0			MΩ
RF Equivalent RLC Model	Motional Resistance	R_M		20	26	Ω
	Motional Inductance	L_M		74.8619		μH
	Motional Capacitance	C_M		1.7989		fF
	Shunt Static Capacitance	C_0	1.65	1.95	2.25	pF

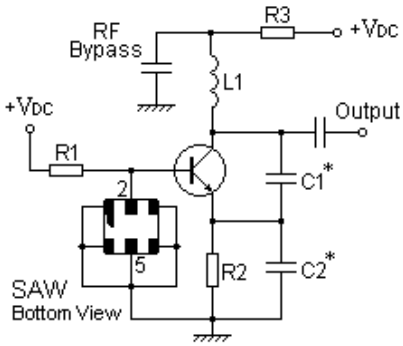
ⓘCAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

6. Typical Application Circuit

1) Low-Power Transmitter Application



2) Local Oscillator Application



7. Notes

1. The center frequency, f_C, is measured at the minimum IL point with the resonator in the 50Ω test system.
2. Unless noted otherwise, case temperature T_C = +25°C±2°C.
3. 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.
4. 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: $f = f_0 [1 - FTC (T_0 - T_C)^2]$.
5. 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 the two terminals. The measurement includes case parasitic capacitance.
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. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
8. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.

Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.

For questions on technology, prices and delivery, please contact our sales offices or e-mail sales@aeccrystal.com