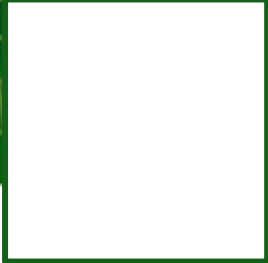
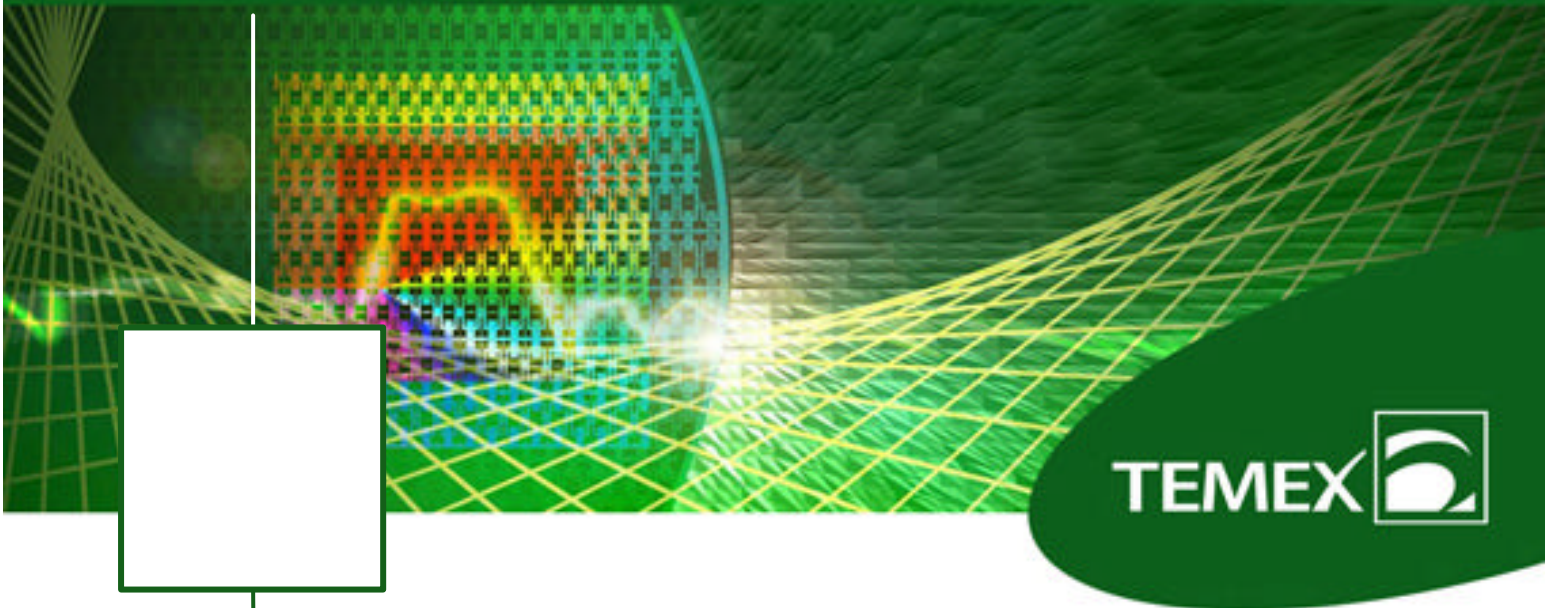


# SAW Resonator



## FR W338

SAW Resonator – Remote Control  
Specification (Rev 2)

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▣ Features.....	P01
▣ Package Drawing & Pin out.....	P01
▣ Technical Characteristics .....	P02
▣ LC Model .....	P02
▣ Typical Applications .....	P03
▣ Nominal Response.....	P03
▣ Maximum Ratings.....	P04
▣ Marking & Packaging .....	P04

# FR W338

## SAW Resonator – Remote Control

Specification (Rev.2)

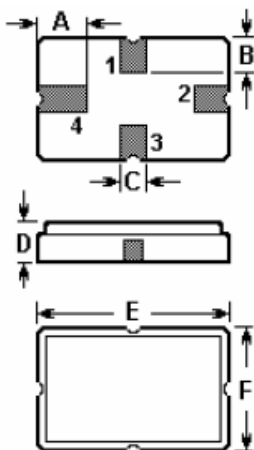
September 25<sup>th</sup>, 2005

### Features

- SAW Resonator
- Quartz frequency stabilization
- Tolerance  $\pm 75\text{kHz}$
- Ceramic package for Surface Mounted Technology

### Package Drawing & Pin out

The product is in conformance with the European RoHs Regulation 2002/95.



Dimensions (unit: mm)

A	1.2
B	0.8
C	0.5
D	1.4
E	5.0
F	3.5

Pin Configuration

Input	1 or 3
Output	3 or 1
Case ground	2, 4

# FR W338

## SAW Resonator – Remote Control

Specification (Rev.2)

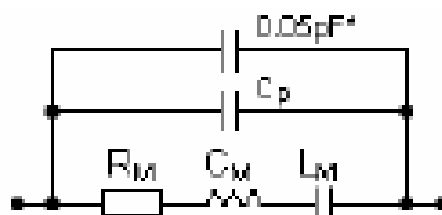
September 25<sup>th</sup>, 2005

### Technical Characteristics

Reference Temperature : +25°C

Electrical Parameters	Unit	Minimum	Typical <sup>(1)</sup>	Maximum
Center Frequency $f_c$	MHz	-	315	-
Tolerance from $f_c$	kHz	-	-	±75
Insertion Loss	dB	-	1.3	1.8
<b>Quality Factor</b>				
Unloaded Q ( $Q_u$ )		-	11.950	-
50 W Loaded Q ( $Q_l$ )		-	1.650	-
<b>Temperature Stability</b>				
Turnover Temperature ( $T_0$ )	°c	25	-	55
Turnover Frequency ( $f_0$ )	kHz	-	Fc	-
Frequency Temperature Coefficient (FTC)	ppm/°c <sup>2</sup>	-	0.032	-
Frequency Aging Absolute Value during the first Year [ $f_A$ ]	ppm/yr	-	< 10	
DC Insulation Resistance Between any Two Pins	MΩ	1.0	-	-
<b>RF Equivalent RLC Model</b>				
Motional Resistance ( $R_M$ )	Ω	-	16	23
Motional Inductance ( $L_M$ )	μH	-	96.7546	-
Motional Capacitance ( $C_M$ )	fF		2.6411	-
Shunt Static Capacitance ( $C_0$ )	pF	2.6	2.85	3.10

### LC Model



# FR W338

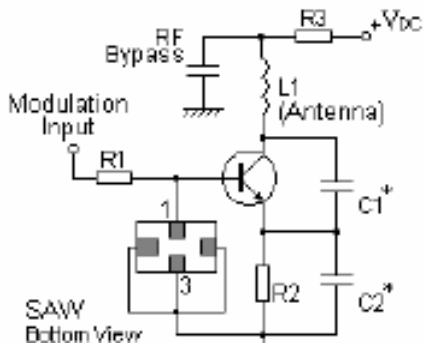
## SAW Resonator – Remote Control

Specification (Rev.2)

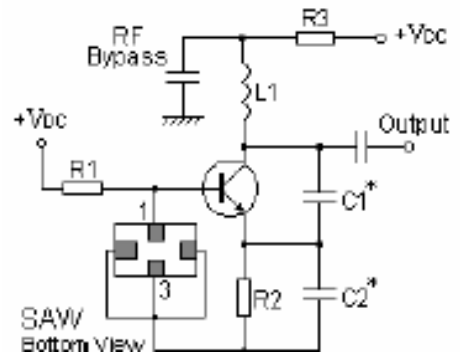
September 25<sup>th</sup>, 2005

### Typical Applications

Low Power Transmitter

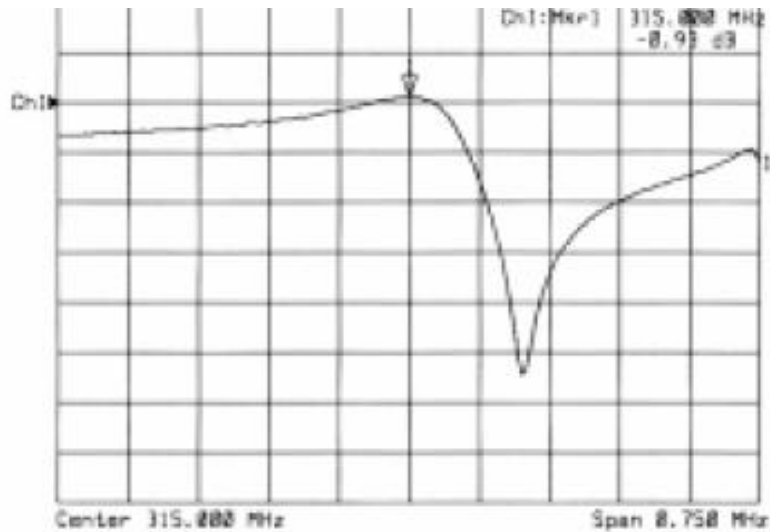


Local Oscillator



### Nominal Frequency Response (Measurements)

Frequency Response



# FR W338

## SAW Resonator – Remote Control

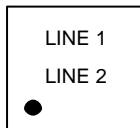
Specification (Rev.2)

September 25<sup>th</sup>, 2005

### Maximum Ratings

Storage Temperature Range	°C	[-40°C ; +85°C]
DC voltage between any two pins	V	± 30
CW RF Power Dissipation	dBm	0

### Marking



Line 1: "FR NNNN" is the reference to Temex Part number

Line 2: RYWWZZ is the date code as:

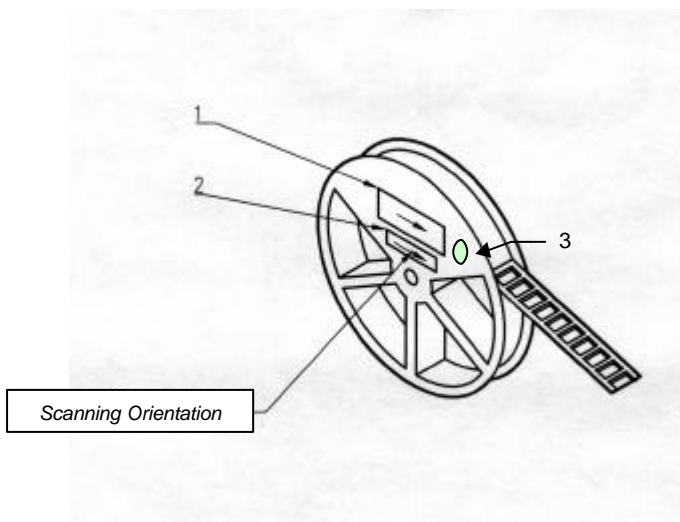
R: Partner identifier.

Y: last digit of the year.

WW: number of week in the year

ZZ: Lot number in the week (from AA to ZZ).

### Packaging



- 1 – Temex Label
- 2 – ESD Prevention Label
- 3 – Pb Free Label