

# SAW Resonator



## FR W341

SAW Resonator – Remote Control  
Specification (Rev 1)

---

▣ 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 W341

## SAW Resonator – Remote Control

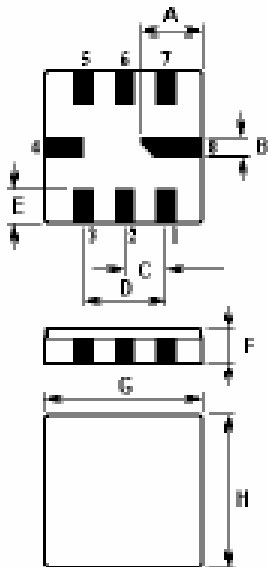
September 25<sup>th</sup>, 2005

### 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)

Dimension	Value (mm)
A	2.8
B	0.6
C	1.27
D	2.54
E	1.2
F	1.35
G	5.0
H	5.0

Pin Configuration

Input	2
Output	6
Case ground	4, 8

# FR W341

## SAW Resonator – Remote Control

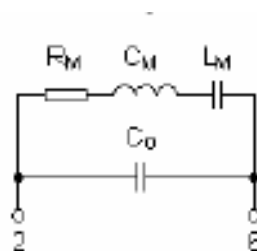
September 25<sup>th</sup>, 2005

### Technical Characteristics

Reference Temperature : +25°C

Electrical Parameters	Unit	Minimum	Typical <sup>(1)</sup>	Maximum
Center Frequency $f_c$	MHz	-	433.42	-
Tolerance from $f_c$	kHz	-	-	±75
Insertion Loss	dB	-	1.5	2.4
<b>Quality Factor</b>				
Unloaded Q ( $Q_u$ )		-	10.6	-
50 W Loaded Q ( $Q_l$ )		-	2.2	-
<b>Temperature Stability</b>				
Turnover Temperature ( $T_0$ )	°c	25	-	55
Turnover Frequency ( $f_0$ )	kHz	-	$f_c$	-
Frequency Temperature Coefficient (FTC)	ppm/°c <sup>2</sup>	-	0.037	-
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	-	19	33
Motional Inductance ( $L_M$ )	μH	-	101.841	-
Motional Capacitance ( $C_M$ )	fF	-	1.3254	-
Shunt Static Capacitance ( $C_0$ )	pF	-	2.3	-

### LC Model



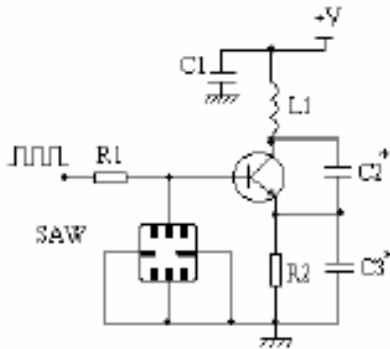
# FR W341

## SAW Resonator – Remote Control

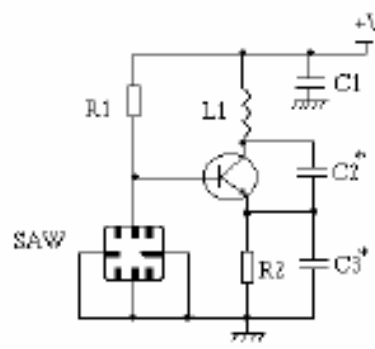
September 25<sup>th</sup>, 2005

### Typical Applications

Telecontrol Circuitry

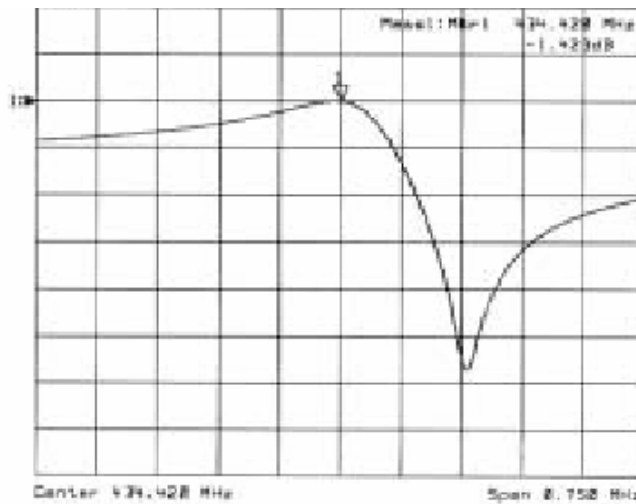


Local Oscillator



### Nominal Frequency Response (Measurements)

Frequency Response



# FR W341

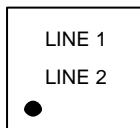
## SAW Resonator – Remote Control

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	10

### Marking

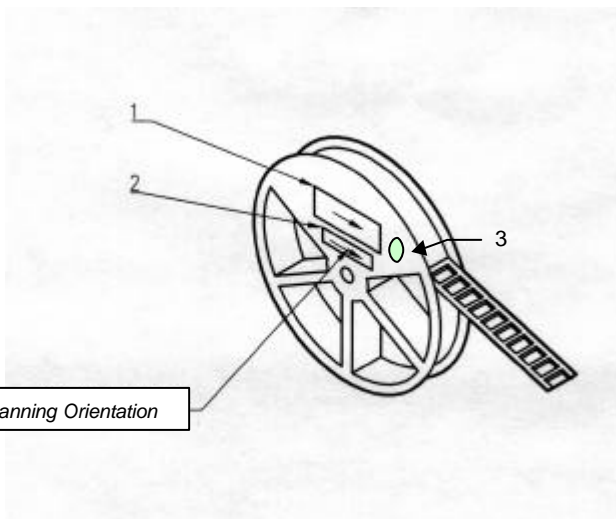


Line 1: "FR NNNN" is the reference to Temex Part number

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