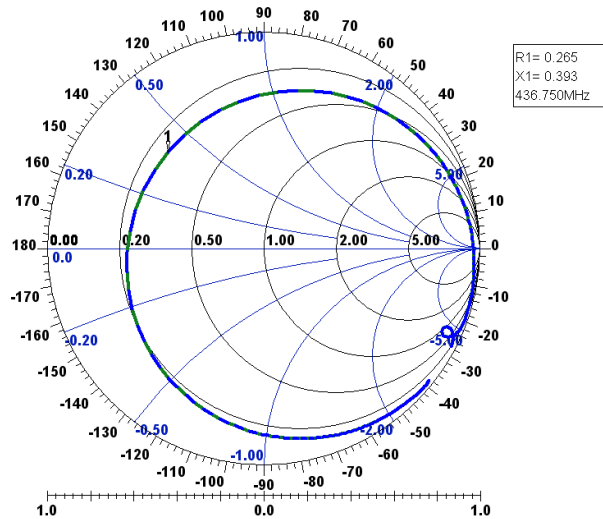


## SS436FB3 SAW-Temperature sensor (1-port Resonator)

This product is lead-free in compliance with RoHs 2002/95/EC.

**Typical performance: S11 @ 23°C**



### Test Conditions:

RF power	-10 dBm
Temperature	23 °C
DC Voltage	0 V
Terminating source impedance ( $Z_S$ ):	50 $\Omega$
Terminating load impedance ( $Z_L$ ):	50 $\Omega$

		minimum	typical	maximum	unit
Nominal frequency <sup>*1</sup>	$F_n$	437.015	<b>437.030</b>	437.045	MHz
Insertion Loss	$I_L$		1.0	1.3	dB
Unloaded quality factor	$Q_U$		8200		
Ageing @275°C			-0.3		K/1000h
Equivalent Circuit elements					
Motional capacitance	$C_1$		3.7		fF
Motional inductance	$L_1$		35.844		$\mu$ H
Motional resistance	$R_1$		12		$\Omega$
Parallel capacitance	$C_0$		1.4		pF
Operating temperature range		-40		275	°C
Operating in ISM band		180		350	°C
Temperature coefficient of frequency	$TC_F$				
	$\alpha$		0.034		ppm/K <sup>2</sup>
	$\beta$		-40.4		ppm/K
	$\delta$		911.0		ppm

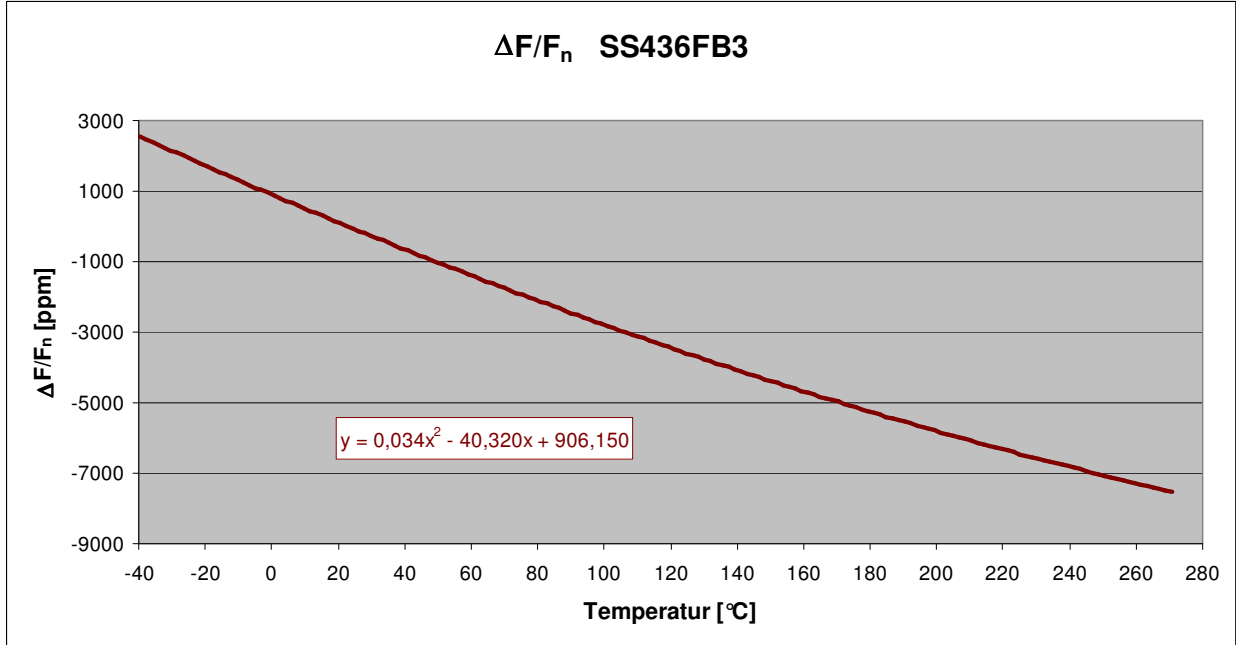
Electrostatic Sensitive Device

<sup>\*1</sup> Nominal frequency is defined as minimum s11.

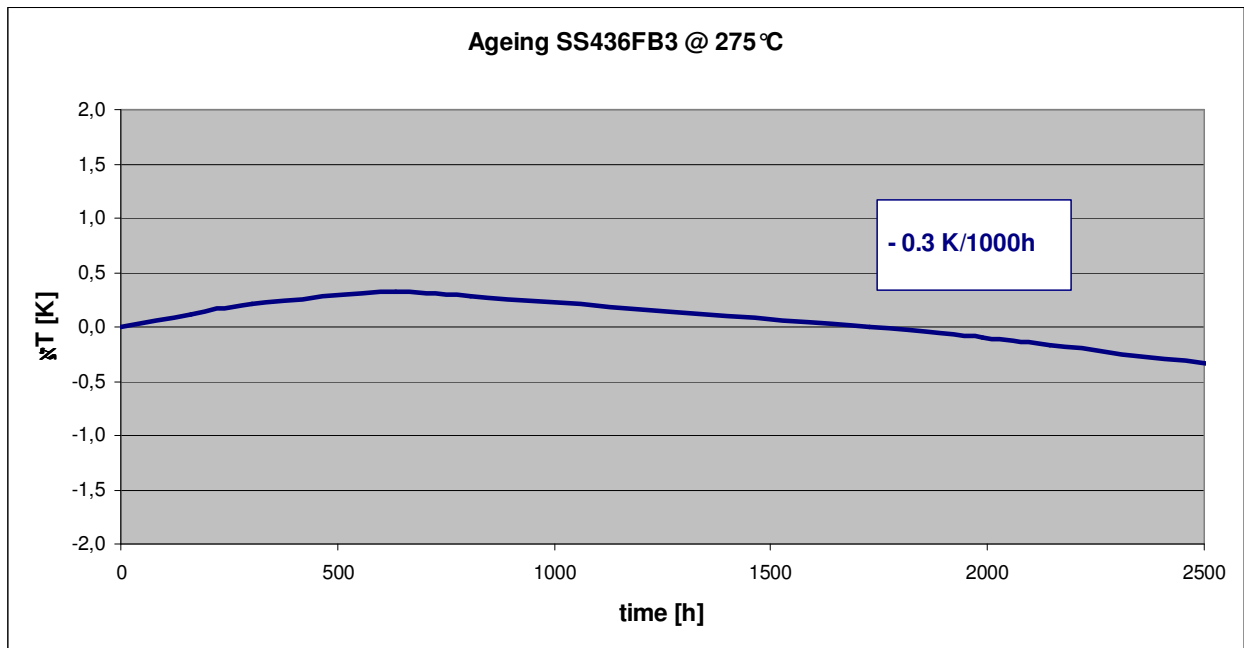
**Other tolerances of nominal frequency on request.**

## Temperature coefficient of frequency

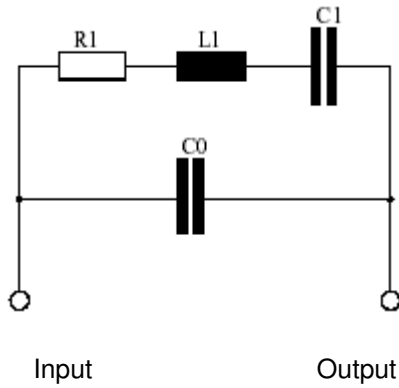
$$\Delta F/F_n = \alpha \cdot T^2 + \beta \cdot T + \delta \text{ with } T \text{ in } ^\circ\text{C}$$



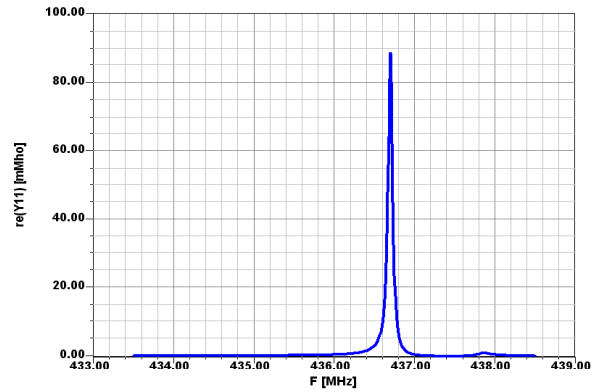
## Ageing @ 275°C



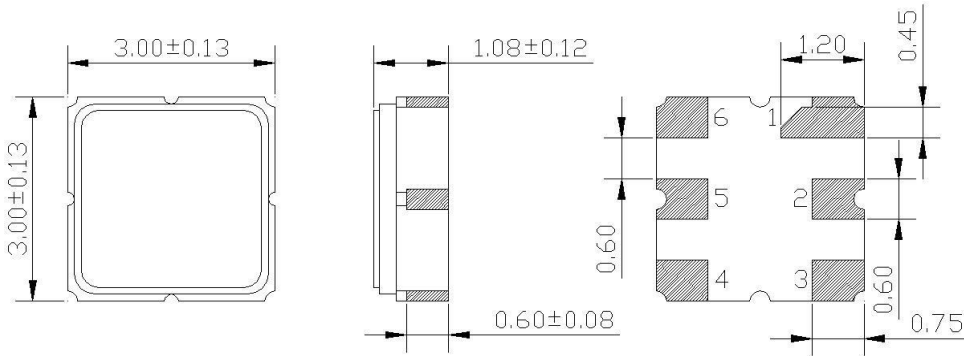
### Equivalent Circuit



### Admittance



### Package: S25 / 3.0\*3.0mm<sup>2</sup>

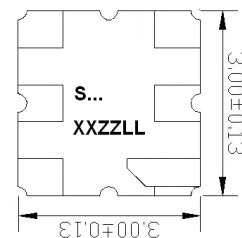


All dimensions in mm

Pin 1	Case ground to be grounded	Pin 6	to be grounded
Pin 2	Antenna (Input / Output)	Pin 5	to be grounded
Pin 3	to be grounded	Pin 4	Case ground to be grounded

### Marking

S...	Type
XXZZLL	Date code
XX	Year
ZZ	Calendar week
LL	Lot Number



## Tape & Reel

### Packing

The product shall be properly packed to avoid damaged during transportation and storage.

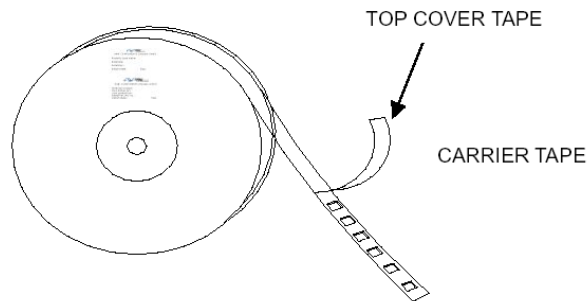
### Reeling Quantity

4.000 pcs/reel

### Taping Structure


#### Tape & Reel Orientation

The tape shall be wound around the reel in the direction shown below.



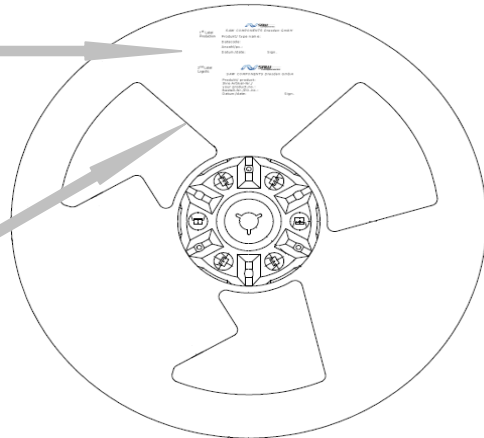
## Label

1<sup>st</sup> Label  
Production

  
SAW COMPONENTS Dresden GmbH  
Produkt/ type name:  
Datecode:  
Anzahl/pc.:  
Datum /date: Sign.

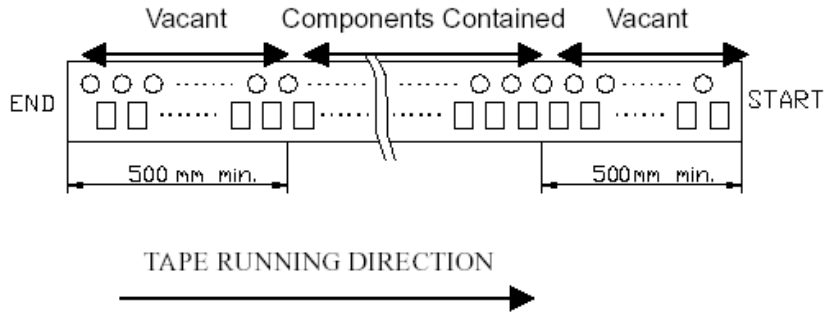
2<sup>nd</sup> Label  
Logistic

  
SAW COMPONENTS Dresden GmbH  
Produkt/ product:  
Ihre Artikel-Nr./  
your product-no.:  
Bestell-Nr./PO-no.:  
Datum /date: Sign.



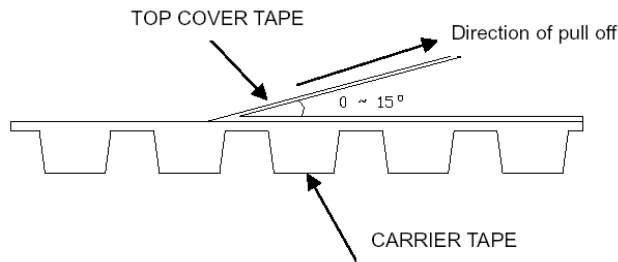
Label Reel

### Leader part and vacant position specifications

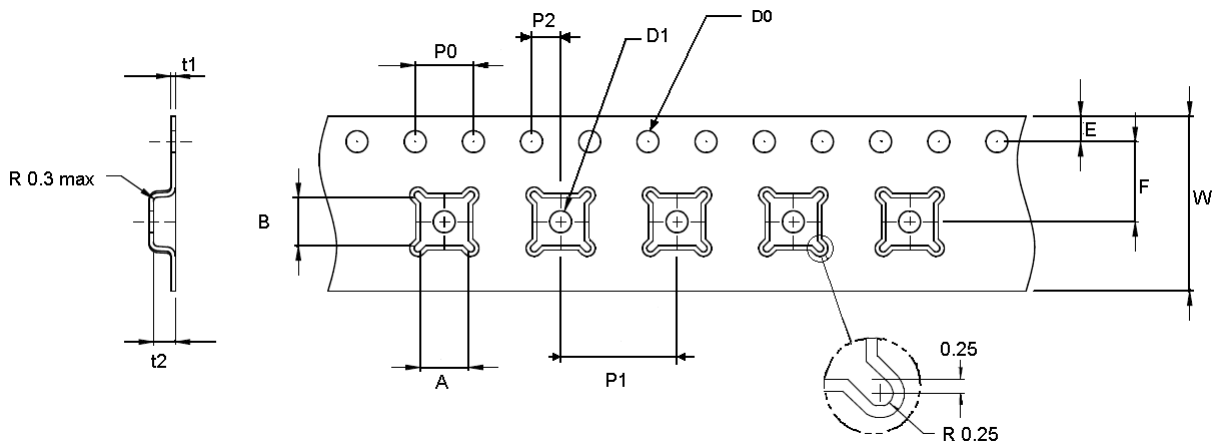


### Tape Specifications

Tensile Strength of Carrier Tape: 4.4N/mm width  
 Top Cover Tape Adhesion (see figure shown below)  
 pull off angle: 0~15°  
 speed : 300mm/min.  
 force : 20~70g

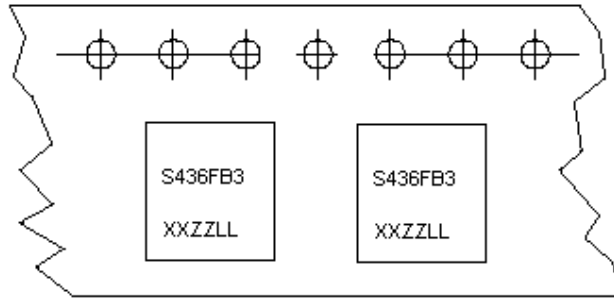


### Carrier Tape Dimensions



W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.0	5.5	1.75	4.0	8.0	2.0	1.5	1.5	0.3	1.5	3.3	3.3
±0.3	±0.05	±0.1			±0.05	+0.1		±0.05			

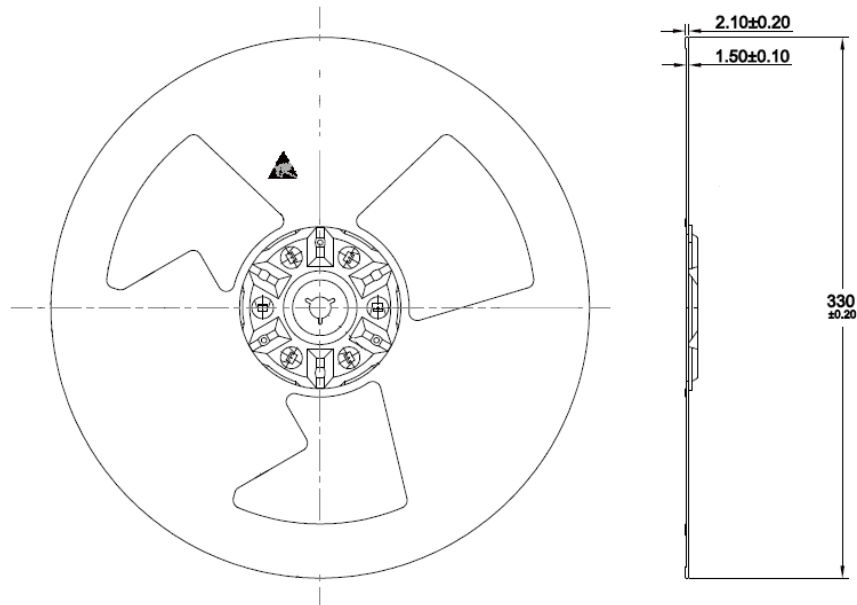
## Part Direction



Tape Running Direction



## Reel Dimensions



Unit: mm