

# APPROVAL SHEET

Approval Specification	Customer's Approval Certificate
TO:	Checked & Approved by:
Part No.:	Date:
Customer's Part No.:	Please return this copy as a certification of your approval

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Part No.	:	SFR310D
Pages	:	4
Date	:	2016/8/1
Revision	:	2.0

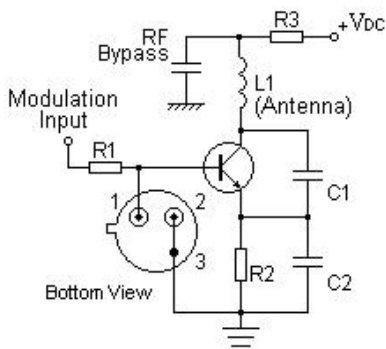
**Features**

- 1-port Resonator
- Metal Case for TO-39
- RoHS compatible
- Package Code TO-39
- Electrostatic Sensitive Device(ESD)

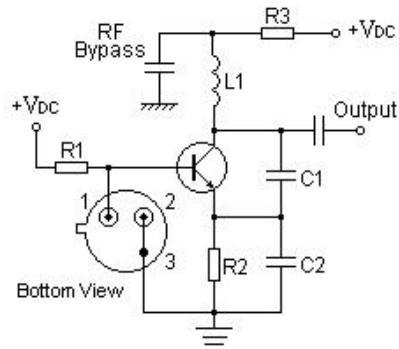


**Application**

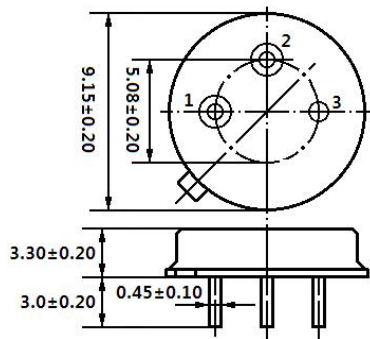
Typical Low-Power Transmitter Application



Typical Local Oscillator Application



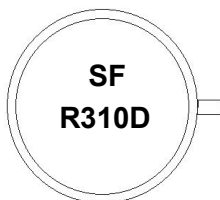
**Package Dimensions (TO-39)**



**Pin Configuration**

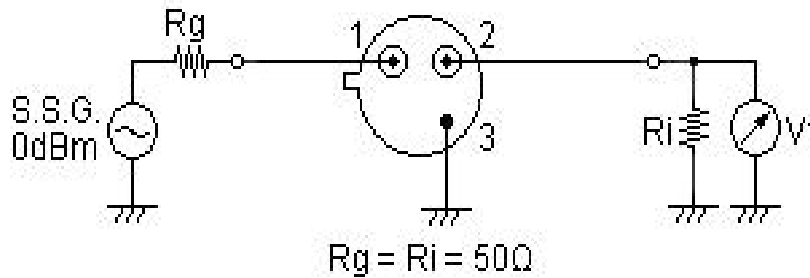
1	Input/ Output
2	Output/ Input
3	Case Ground

**Marking**

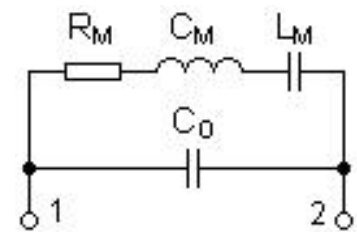


SF	Trademark
R	SAW Resonator
310D	Part number

## Test Circuit



## Equivalent LC Model



## Performance

## Maximum Rating

Item		Value	Unit
DC Voltage	$V_{DC}$	$\pm 30$	V
Operation Temperature	T	-40 ~ +85	$^{\circ}C$
Storage Temperature	$T_{stg}$	-40 ~ +85	$^{\circ}C$
RF Power Dissipation	P	25	dBm

## Electronic Characteristics

Test Temperature:  $25^{\circ}C \pm 2^{\circ}C$

Terminating source impedance:  $50\Omega$

Terminating load impedance:  $50\Omega$

Item		Minimum	Typical	Maximum	Unit
Center Frequency	Absolute Frequency	$f_c$	310.00		MHz
	Tolerance from 310.00MHz	$\Delta f_c$	$\pm 75$		KHz
Insertion Loss(min)		IL	1.5	2.0	dB
Quality Factor	Unloaded Q	$Q_U$	12310		
	$50\Omega$ Loaded Q	$Q_L$	1405		
Frequency Aging	Absolute Value during the First Year	$ f_A $	$\leq 10$		ppm/yr
DC Insulation Resistance between Any Two Pins			1.0		M $\Omega$
RF Equivalent RLC Model	Motional Resistance	$R_M$	14.5	18.0	$\Omega$
	Motional Inductance	$L_M$	81.2		$\mu H$
	Motional Capacitance	$C_M$	3.2		fF
	Static Capacitance	$C_0$	4.2	4.5	4.8



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