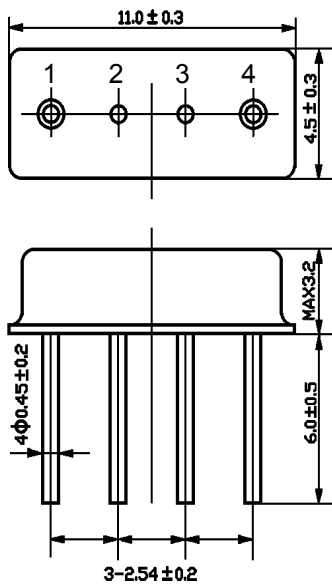


**1. Package Dimension**  
(F-11)



No.	Function
1	Input/Output
2,3	Case Ground
4	Output/Input

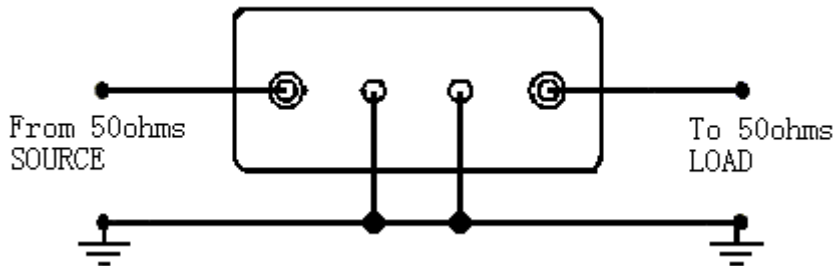
Unit: mm

**2. Marking**

Rugular

- 2.1 Color: Black or Blue
- 2.2 Center Frequency (MHz): 903.00

**3. Test circuit**



**4. Performance**

4.1 Absolute Maximum Ratings

Rating	Value	Units
CW RF Power Dissipation	0	dBm
DC Voltage between Any Two Pins	±15	VDC
Case Temperature	-40 to +85	°C

4.2 Electrical Characteristics

Characteristic		Sym	Minimum	Typical	Maximum	Units
Center Frequency(+25°C)		$f_c$		903		MHz
Insertion Loss		IL		3.5	4.5	dB
User signal passband				$\pm 2.0$		MHz
Temperature Stability	Operating Case Temperature	$T_C$	-35		+85	°C
	Turnover Temperature	$T_0$		25		°C
	Turnover Frequency	$f_0$		$f_c$		MHz
	Frequency Temperature Coefficient	FTC		0.032		ppm/°C <sup>2</sup>
Frequency Aging Absolute Value during the First Year		fA		$\leq \pm 10$		ppm/yr
Rejection	at $f_c-400\text{MHz} \sim f_c -40.8\text{MHz}$		40			dB
	at $f_c+50\text{MHz} \sim f_c+400\text{MHz}$		40			
Terminating Impedence			50 Ω // <10nH			

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

**NOTES:**

1. 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.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture, which is connected to a 50 Ω test system with VSWR  $\leq 1.2 : 1$ .
3. The frequency  $f_c$  is defined as the midpoint between the 3dB frequencies.
4. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
5. One or more of the following U.S. Patents apply: 4,454,488; 4,616,197; and others pending.
6. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
7. The design, manufacturing process, and specifications of this device are subject to change without notice.
8. Turnover temperature,  $T_0$ , is the temperature of maximum (or turnover) frequency,  $f_0$ . The nominal center frequency at any case temperature,  $T_C$ , may be calculated from:  $f = f_0 [1 - FTC (T_0 - T_C)^2]$ . Typically, oscillator  $T_0$  is 20° less than the specified resonator  $T_0$ .

**5. Typical Frequency Response**

