

- **Ideal for DSB Wireless Receivers**
- **Constant Group Delay**
- **Improved ESD capability by integrated shunt resistors**
- **Rugged, Hermetic, Low Profile TO-39 Package**

SF480-1

Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
DC Voltage VDC	0	V
AC Voltage Vpp	5 (50Hz/60Hz)	V
Operating Temperature Range	-20 ~ +80	°C
Storage Temperature Range	-40 ~ +85	°C

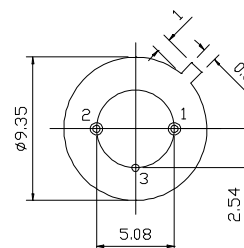
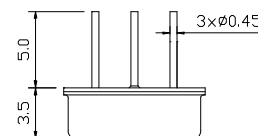
Specifications						
Parameter	Sym	Minimum	Typical	Maximum	Unit	
Frequency (25°C)	Nominal Frequency	fc	NS	480.000	NS	MHz
	Tolerance from 480.000 MHz	Δf_c	-	± 1.0	-	MHz
Insertion Loss	IL	-	19.5	21.0		dB
3dB Bandwidth	BW ₃	16.6	17.6	18.6		MHz
Relative Attention	471.0 MHz	-	3.4	5.4		dB
	489.0 MHz	-	3.0	5.4		dB
Lower Sidelobe	430.0 ~ 461.0 MHz	-	38.0	50.0		dB
Upper Sidelobe	499.0 ~ 530.0 MHz	-	38.0	45.0		dB
Reflected Wave Signal Suppression 0.13 μ s ~ 2.0 μ s after Main Pulse	-	40.0	46.0	-		dB
Amplitude Ripple	476.0 ~ 484.0 MHz	-	0.3	0.6		dB
Group Delay Ripple	480.0 MHz	-	281.0	-		ns
Impedance at 480 MHz	Input Zin = Rin Cin	-	70 3.7	-		Ω pF
	Output Zout = Rout Cout	-	280 2.5	-		Ω pF
Temperature Coefficient of Frequency	FTC	-	-94	-		ppm/K
DC Insulation Resistance Between any Two Pins	-	1.0	-	-		M Ω

NS = Not Specified

Notes

Package Outline (TO-39-3)

- 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 (VSWR $\leq 1.2:1$). The test fixture's L and C are adjusted for minimum insertion loss at the filter center frequency. f_c Note the insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality. The optimum impedance matching component values are dependent on circuit parasitic losses.
- The frequency f_c is defined as the midpoint between the 3dB frequency.
- Unless notes otherwise, specifications apply over the entire specified operating temperature range.
- The design, manufacturing process, and specifications of this device are subject to change without notice.
- The turnover temperature, T_o is the temperature of maximum (or turnover) frequency, f_c the nominal frequency at any case temperature, T_c , may be calculated from : $f = f_c [1 - FTC(T_o - T_c)^2]$.



Pin	Connection
1	Input/Output
2	Output/Input
3	Ground

All dimensions are in mm