

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

**SF480-7**

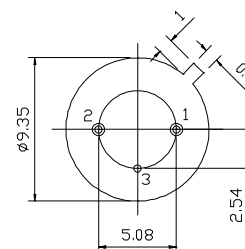
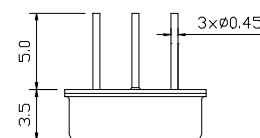
Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
DC Voltage V <sub>DC</sub>	0	V
AC Voltage V <sub>pp</sub>	5 (50Hz/60Hz)	V
Operating Temperature Range	-20 ~ +80	°C
Storage Temperature Range	-40 ~ +85	°C

Specifications						
Parameter	Sym	Minimum	Typical	Maximum	Unit	
Frequency (25°C)	Nominal Frequency	f <sub>c</sub>	NS	479.500	NS	MHz
	Tolerance from 479.50 MHz	Δf <sub>c</sub>	-	±1.0	-	MHz
Insertion Loss	IL	-	21.0	22.5		dB
3dB Bandwidth	BW <sub>3</sub>	-	36.2	-		MHz
Relative Attention	462.0 MHz	-	3.0	4.2		dB
	498.0 MHz	-	2.9	4.2		dB
Lower Sidelobe	430.0 ~ 450.0 MHz	-	36.0	41.0		dB
Upper Sidelobe	510.0 ~ 530.0 MHz	-	36.0	42.0		dB
Reflected Wave Signal Suppression 0.1μs ~ 2.0μs after Main Pulse	-	40.0	48.0	-		dB
Amplitude Ripple	467.0 ~ 493.0 MHz	-	0.3	0.5		dB
Amplitude Tilt	467.0 ~ 493.0 MHz	-	0.02	-		dbm/MHz
Group Delay	480.000 MHz	-	274.0	-		ns
Group Delay Ripple	466.5 ~ 493.5 MHz	-	1.4	3.0		ns
Impedance at 479.5 MHz	Input Z <sub>in</sub> = R <sub>in</sub>    C <sub>in</sub>	-	60    4.8	-		Ω    pF
	Output Z <sub>out</sub> = R <sub>out</sub>    C <sub>out</sub>	-	260    3.1	-		Ω    pF
Temperature Coefficient of Frequency	FTC	-	-86	-		ppm/K
DC Insulation Resistance Between any Two Pins	-	1.0	-	-		MΩ

NS = Not Specified

Notes	Package Outline (TO-39-3)
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- 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 ≤ 1.2:1). The test fixture's L and C are adjusted for minimum insertion loss at the filter center frequency. f<sub>c</sub> 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<sub>c</sub> 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<sub>o</sub> is the temperature of maximum (or turnover) frequency, f<sub>c</sub> the nominal frequency at any case temperature, T<sub>C</sub>, 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